



# ALL HANDS

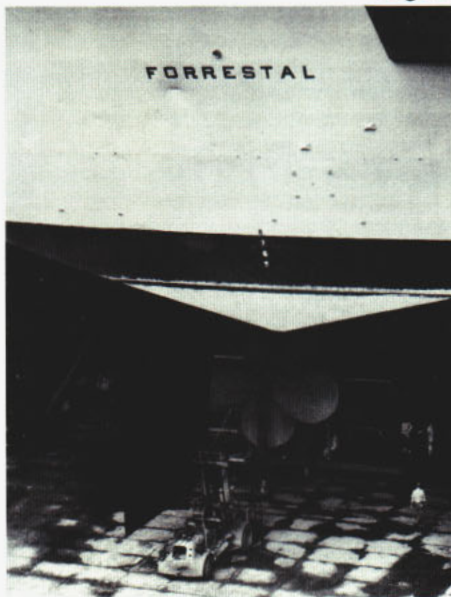
AUGUST 1977



*IN A HURRY—Landing craft pour from the amphibious transport dock USS Coronado (LPD 11) during a mock assault on a North Carolina beach this past spring. (Photo by PHC Milt Putnam)*



Page 4



Page 20



Page 40

# ALL HANDS

MAGAZINE OF THE U.S. NAVY — 55th YEAR OF PUBLICATION  
AUGUST 1977 NUMBER 727

## Features

- 4 **O.H. PERRY CLASS TEST CENTER**  
Testing combat systems before they go to the fleet
- 9 **CLASSROOM TACTICS HIT THE BEACH!**  
Dawn Patrol and Solid Shield amphibious exercises
- 12 **SILENT WITNESS**  
Does a ghost reside at Pensacola's lighthouse?
- 18 **'I PUT MYSELF IN THE PLAYER'S POSITION'**  
Coach George Welch on physical fitness
- 20 **SLEP — EXTENDING THE LIFE OF CARRIERS**  
A plan to keep the Navy's carriers effective
- 28 **TRADING LEDGERS FOR SONAR GEAR**  
Reservists train aboard the ships of DesRon 28
- 32 **THE NAVY'S VITAL LINK WITH SPACE SHUTTLE**  
What's the 1980s space program all about?
- 40 **THE COAST GUARD TODAY**  
The Navy's sister service performs a multitude of tasks
- 46 **GRAND OLD LADY OF CHARLEVOIX**  
A tender turned icebreaker on Lake Michigan

## Departments

- 2 **Currents**
- 17 **Information Exchange**
- 24 **Bearings**
- 48 **Mail Buoy**

## Covers:

Front: The lighthouse at NAS Pensacola, seen from a different angle.

Photo by PH2 Dwain Patton.

Back: Artist's concept of the Navy's Space Shuttle Program, see page 32.

Chief of Naval Operations: Admiral James L. Holloway III  
 Chief of Information: Rear Admiral David M. Cooney  
 Dir. Print Media Div. (NIRA): Lieutenant Commander G. Wm. Eibert  
 Editor: John F. Coleman  
 Production Editor: Lieutenant John Alexander  
 Layout Editor: E. L. Fast  
 Art Editor: Michael Tuffli

Staff: LT Bill Ray  
 JOC Dan Guzman  
 JO1 John Yonemura  
 JO1 Jerry Atchison  
 JO1 (SS) Pete Sundberg  
 PH1 Terry Mitchell  
 JO2 Dan Wheeler  
 JO2 Davida Matthews  
 JO3 Francis Bir  
 Edward Jenkins  
 Elaine McNeil

# Currents

## Navy Establishes

**New AEGIS Shipbuilding System** ● Work to strengthen the design, acquisition, fleet-introduction and life-support programs of the Navy's new AEGIS destroyer and cruiser classes has resulted in the formation of a new, unified AEGIS shipbuilding project. AEGIS is an automated shipboard weapon system that features fast reaction, high firepower/availability and electronic countermeasures immunity to counter anti-air warfare threats. The new project will consolidate the building of AEGIS-equipped ships under a single manager. This system-engineering approach will better meet the Navy's objectives, which include delivery of AEGIS ships to the fleet within cost, on schedule, and with specified performance. Rear Admiral Wayne E. Meyer has assumed the management of the AEGIS Project. RADM Meyer has more than 10 years of experience in the management of complex weapons systems projects including the design of AEGIS systems and ships. AEGIS will provide the nucleus of advanced surface warship combat systems effectively to counter increasing, sophisticated threats to the fleet. The specific goal is AEGIS installation in destroyer and nuclear cruiser classes of ships.

## Submerged Tomahawk

**Missile Launched** ● The Navy recently conducted the first test of a submerged launch through boosted flight with a transition to cruise engine-powered flight of a *Tomahawk* Cruise Missile. Although the missile completed the transition, one of its four tailfins failed to deploy causing the missile to become unstable and fall into the ocean. The cause of the malfunction was identified and is being corrected.

## Double Credit For

**La Salle Duty** ● Double sea duty credit is now given to personnel serving aboard USS *La Salle* (AGF 3), command ship of the U.S. Middle East Force, effective May 31, 1977. BuPers announced that the new credit recognizes the unique nature of duty in *La Salle*, which requires 12-month unaccompanied tours in the Indian Ocean. Personnel desiring to take advantage of this double sea-duty credit should request assignment to *La Salle*, in accordance with BuPersNote 1300 of May 25, 1977.

## DoD Withholding

**State Income Taxes** ● The Department of Defense began withholding state taxes from military paychecks from the following states on July 1, 1977: Alabama, Iowa, New Mexico, Pennsylvania, Virginia, Delaware, Kansas, New York, South Carolina, Idaho, New Jersey, North Carolina and Utah. Military income of residents of Idaho and Pennsylvania will be withheld only while members are stationed in those states. New Jersey and New York laws currently provide specific criteria to determine whether service members will be considered residents of those states for tax purposes. Additionally, DoD began withholding taxes for the following jurisdictions on Aug. 1, 1977: Colorado, Wisconsin, Maryland, Indiana, Massachusetts, District of Columbia and Rhode Island. The follow-

ing states are expected to join the withholding program in November: Hawaii, Nebraska, Kentucky, Oregon and Louisiana. There are no plans at this time to begin the withholding of taxes for those states not listed. Service members should consult legal assistance officers for the details of state tax laws which would affect withholding status.

#### **Eisenhower To Be**

**Homeported In Norfolk** ● The Navy recently announced that *Dwight D. Eisenhower* (CVN 69) will be homeported in Norfolk, Va., following her commissioning this fall. The nuclear-powered *Nimitz* class carrier is fitting out at Newport News, Va.

#### **Limits Set**

**To Garnishment Of Government Pay** ● No more than 65 per cent of the disposable income of military personnel and government employees may be garnisheed (involuntarily deducted) for child support and alimony payments, according to a new pay guideline. The new rule is a provision included in the Tax Reduction and Simplification Act of 1977, recently passed by Congress. Section 659 of Title 42 of the U.S. Code, passed in 1975, authorized garnishment of government salaries for the first time. No limits were set, however, and some personnel were being garnisheed up to 100 % of their pay to cover overdue alimony and child support payments.

#### **Overseas Swap**

**Program Reinstated** ● Navy people assigned overseas are again eligible for the Exchange of Duty (SWAP) program. In January, Change 19 to the Enlisted Transfer Manual (TRANSMAN) deleted overseas areas from this program in an effort to increase stability at overseas commands. Effective immediately, however, personnel serving on Type Duty 1 and 6 are eligible for exchange of duty with personnel serving on similar duty consistent with Sea/Shore and OUTUS/CONUS rotation. Personnel serving on Type Duty 2, 3, 4 or 5 are eligible for exchange only with those serving on either Type Duty 2, 3, 4 or 5. Eligibility criteria for the Exchange of Duty program contained in TRANSMAN, Chapter 16, as modified above, remains effective. Change 20 to the *Enlisted Transfer Manual* will incorporate this revision into the Exchange of Duty program and will be distributed this fall.

#### **Exchanges Contribute**

**\$37 Million To Navy Recreation** ● Navy Exchanges worldwide contributed \$37,230,000 to the Navy Recreation Program during Fiscal Year 1976, according to a recent report by the Navy Resale System Office (NAVRESO). In addition, the Yokosuka Navy Exchange Mail Order Program, with sales of \$13,200,000, distributed \$360,000 to ship and station recreation funds at those activities where personnel made purchases from the mail order catalog during the year. Total Navy Exchange sales for Fiscal Year 1976 were \$1,051,098,000. NAVRESO is projecting sales of \$1,075,600,000 for Fiscal Year 1977.

#### **Naval Petroleum**

**Reserve Transferred To Interior Department** ● The Navy recently transferred Naval Petroleum Reserve Four in Alaska to the Department of the Interior, in accordance with the Naval Petroleum Reserves Production Act of April 5, 1976. Naval Petroleum Reserve Four, which covers 37,000 square miles, was created on Feb. 27, 1923, by President Warren G. Harding. The site now will be known as the National Petroleum Reserve in Alaska (NPRA).

**BIRDS  
FREE!**

**GRAND  
SLAM!**

**At the  
O.H. Perry Class  
Test Center  
the job goes on  
around the  
clock.**



Sixty minutes into a tight one, the *Silver Fox's* LAMPS helo reports bingo state. It has confirmed the sonar contact reported 165°, 30 miles from the task group as an enemy submarine, but is now being vectored to homeplate.

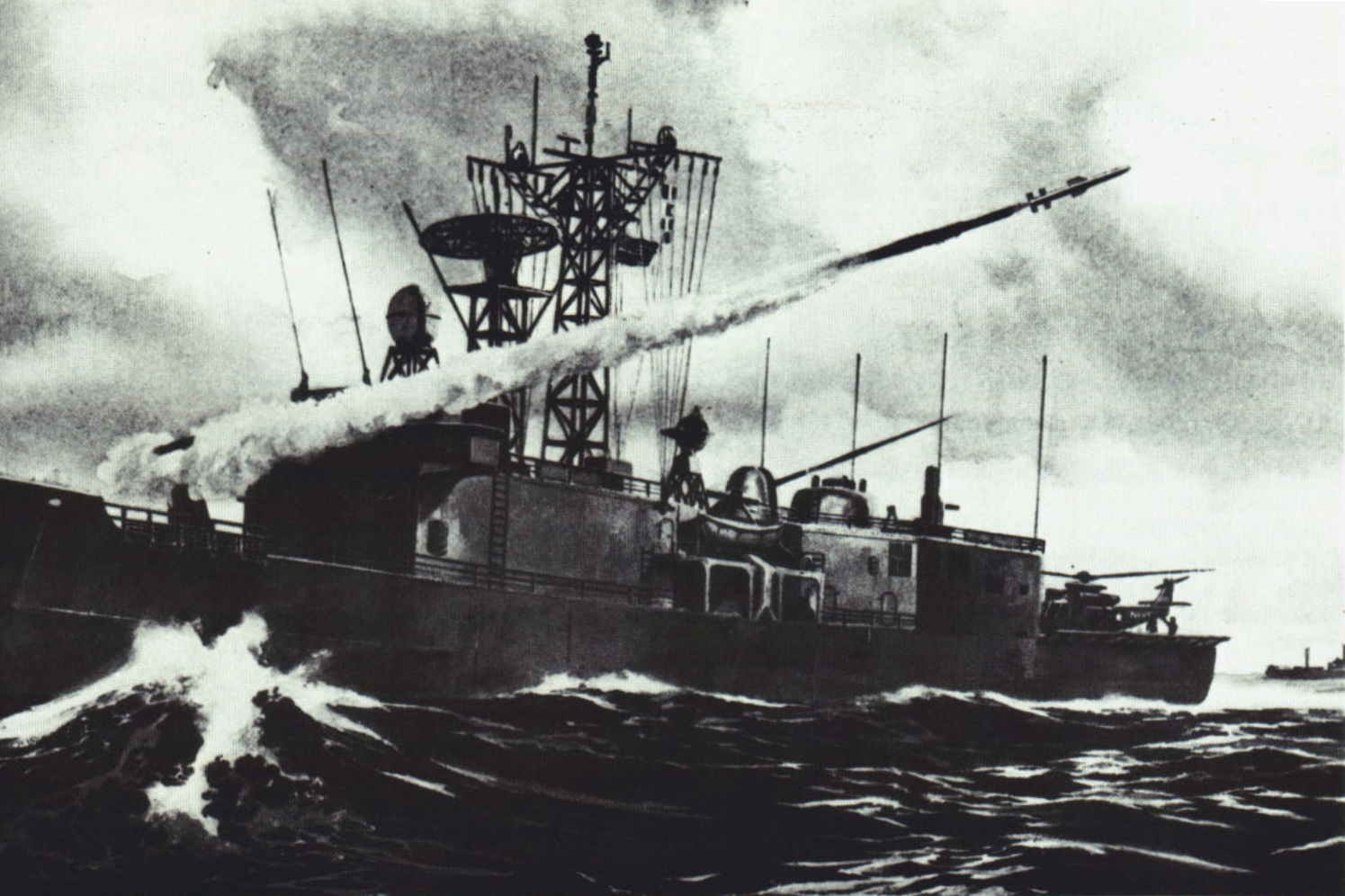
What's that? Off to the west, a wake—a high speed boat approaching. In CIC the radio crackles. "Giant, this is Lamplighter One. Visual contact. *Komar*. Range 12000, bearing 290°, closing you—fast. Over." \*

This is what the CO has been waiting for. In less than a minute, *Silver Fox* has sent a *Harpoon* missile greeting toward the unsuspecting *Komar*. But wait. . . .

Two *Styx* missiles inbound! CIC sees them on radar just as the helo reports same by radio. "Birds free!" Before the report makes it to OTC, four *Standard* missiles are in the air to intercept. . . . "Grand slam!"

So far so good. *Silver Fox* has held her own and the *Komar* is in flames. Now to set flight quarters, recover the

\* (Terminology used in trainers may not reflect actual fleet usage.)



helo, refuel, rearm and send it back out.

For twenty minutes everything goes smoothly. Over the 1MC, "All hands stand clear while engaging rotors."

Suddenly the gates of Hades open wide, real wide—the sub, at 235° and 12 miles away, launches a *SS-N-7* missile. Ten seconds later she gets off another, and a third, and a fourth. . . . What now???

Shut down the equipment and head for beautiful downtown Ronkonkoma.

It was, after all, only a dry run; you were making use of the sophisticated computers, weapons consoles and radar equipment housed at the Oliver Hazard Perry (FFG-7) Class Combat System Test Center in Ronkonkoma, N. Y. You weren't in the Mediterranean or the North Atlantic, nor were you really aboard a guided missile frigate as part of a protective screen for a convoy or replenishment group.

Still, merely throwing a series of switches and turning up the room lights hardly transforms you—not instantly at least—to your dry land surroundings. Your mind is still aboard a ship

reaching for deep water and trying to dodge incoming missiles. The mood is sobering—it's all a game; but is it really?

The test center has been in operation since 1974, across the road from Islip's MacArthur Airport on Long Island. It's housed in a rambling one-story aluminum-sided building put up by Sperry Division of Sperry Rand Corp.; a small, unobtrusive sign tells passers-by that it's the Sperry Systems Test Center.

Nothing hints that the structure has anything to do with a ship under construction at Bath, Maine. The radars on the north side of the structure are imposing to say the least. They provide the only hint that something different goes on inside the building. Security is tight, yet it has a disarming profile. Nothing garish here.

Inside, two engineering duty officers—Lieutenant Commander Hank Feiser and Lieutenant Fred Wyse—head up a group of 21 Navy enlisted people, including two women. They answer operationally to the Naval Sea Systems Command (PMS 399—Guided Missile

Frigate Ship Acquisition Project Office) in Washington and administratively to the Naval Plant Representative Office in Great Neck, N. Y.

Actually, the Perry Class Test Center plays an advocate role in behalf of fleet sailors—particularly those who will man the combat system of the new O. H. Perry Class Guided Missile Frigates, approximately 60 ships in all, including several which will be built for the Australian Navy.

Originally, the role of the center's Navy personnel was to be the combat system demonstration crew for the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) during the initial operational test and evaluation.

Subsequently, the Ronkonkoma group, drawing on its thorough familiarity with the *Perry* combat system, and considerable operational experience of its members, has assumed two broad engineering development missions:

- First—test out the system. Find out what can go wrong with it at sea; find out what is inconvenient to oper-

*LTJG Bill Bruen acting as the ASW Evaluator, with LTJG Sid DuMont as the assistant ASW Evaluator. LTJG Bruen is the prospective Ordnance Officer and LTJG DuMont is the prospective ASW Officer of FFG 7.*

ate, hard to maintain, and inadequately supported by manuals and spare parts. Then, propose and push through corrections.

- Second—train the combat information, weapons and data systems personnel who will man the *Perry* in the operation and maintenance of the combat system. Train them before they report for duty.

As new systems are added—LAMPS III, TACTAS, ASMD EW, LINK II and CIWS—to the *Perry* and following ships of the class, they will be installed at the Combat System Test Center first to prove the changes will work. The job includes verifying blueprints, cabling, computer programs, combat system doctrine and the like.

With this kind of work scheduled for the future, the *Perry* Class Test Center should be operational until at least 1985.

For the present, the job is complex and demanding. The Navy men and women attached to the center (OSs, DSs, FTs, ETs—and a lone PN) have learned to disregard the term “working hours.”

“We haven’t had the luxury of such a thing as normal working hours since I’ve been here,” said LCDR Feeser. The job goes on around the clock with Sperry engineers and programmers filling the day. Working far into the night—any night, and on weekends—or reporting aboard at 0300 is standard operating procedure for the Navy. The test center also finds itself restructuring its schedule to accommodate other commands and priorities.

LCDR Feeser offers an example. “We had an A-4 squadron ready to provide aircraft services next week for a scheduled air attack exercise. Now I get word they have an urgent operational commitment and we have to rely instead on a Reserve outfit from Minnesota. They operate only on week-



ends. That means we’ll be here all Saturday and Sunday.”

But once the discussion shifts to the business at hand, complaints about long hours disappear. Everyone at the test center fairly lives and breathes his work—the group has been “underway” many hundreds of hours.

Aside from the usual array of offices, drafting spaces and a computer room, the test center is built around mock-ups containing the equipment being fitted into the *Perry* and following ships of that class.

Built exactly to size (of plywood but including steel decks covered with rubber matting), authentically painted, and housing the actual gear, are the following areas:

- Combat Information Center (CIC)
- CIC Equipment Room
- Fire Control Equipment Rooms (containing the MK 92 Mod 2 Fire Control System)

Entering any of the above is like entering the actual spaces aboard ship. One is physically, mentally and emotionally transported to the real-life

shipboard scene, complete with accompanying sounds and subdued combat lighting. Although the computers compensate for the roll and pitch movement of a ship upon the sea, such physical movement is the only missing factor in the Long Island site. Sound powered circuits, radio amplifiers and other communications noise are realistically present—all coming from the Operations Control Center to duplicate real-world inputs to CIC; even to setting flight quarters for helo ops and sea detail for entering harbor.

The test center has a combat system doctrine, ship’s instructions, tactical pubs, and op orders for USS *Silver Fox* (FFG-6.5)—the name given the mock-up. All is geared to make operations as realistic as possible.

In CIC, the array of consoles that comprise the combat system vie for attention with an unlikely competitor—a chair. From its location, which commands a view of all activity in CIC, one can easily conclude that this chair is intended for the commanding officer.

The CO cannot afford to be on the

# “...one submarine skipper ran them ragged in CIC...”

bridge. When split seconds count in missile warfare, he has to see and hear things as they happen—even before they happen. The tactical action officer—assisted by the weapons control officer—has charge of the room, the equipment and the people in it; the skipper, though, can override a decision almost instantaneously. With the radar scopes constantly in view, he sees things much better than if he were on the bridge.

Some traditional aspects of CIC remain. The architects have included some plexiglas status boards on the bulkhead opposite the captain's chair. “Actually, the information recorded on those boards isn't very helpful,” says LT Wyse. “By the time it can be posted, it's already old. It's possible to get a missile off from a cold start a matter of seconds after target detection. It usually takes longer for the TAO to get the okay to shoot. With this kind of speed, we must rely on the computers for information display and record keeping.”

The action is fast paced. The FFG-7 combat system is built around the MK 92 Mod 2, an Americanized version of a Dutch fire control system. It provides up-to-the-second target track files, establishes threat priority and engagement schedules, designates fire control channels, and coordinates loading and assignment of weapons—*Standard* and *Harpoon* missiles, and a MK 75/76 mm OTO MELARA gun. While doing this, the entire tactical picture is displayed for the CO and TAO.

As far as CIC is concerned, the whole outside world exists in the Op-

erations Control Center (OCC). In it is a console full of simulators—launcher, gun, sonar, and so forth—and a team headed by ETC Mike Link and OSC John Booth who control the progress of the battle problem. The officer of the deck and lookouts are in OCC to drive the *Silver Fox* and be the eyes of CIC. So is the officer in tactical command and his task group with all the force radio circuits—PRITAC, PRICI, et cetera. EW and sonar control is there too, as well as the LAMPS pilot with his detachment of helos. And of course, OCC is where the enemy commander holds court!

Everything that goes on in CIC can be monitored from the control center. There are automatic indicators of equipment status and displays of the tactical picture. Four infrared TV cameras, strategically placed in CIC, can be controlled from OCC—to watch over the ASW evaluator's shoulder without getting in his way, for instance, or to zoom in on dials and computer readout screens to see what's going on.

The CIC team knows they are being watched very closely, almost like Big Brother is there! But this is quite practical. The purpose of the test center is to design the combat system of the *Perry* class frigates so that it works—all the time and as efficiently as possible. From OCC it is possible to see what operator action, or sequence of them, causes trouble. The Navy and Sperry engineers work together to correct the problems as they are found, many times effecting fixes before the next day's operations.

To date, the *Silver Fox* has “fired” more than 60,000 missiles and shot almost as many rounds from the gun. They don't all hit their targets either. The simulation computer “rolls a die” each shot—sometimes giving a kill, sometimes a survive. *Silver Fox* has been “sunk” quite a few times as a result.

But there are advantages to simulation. This type of testing could not possibly be done live aboard ship.

Occasionally the OCC team has a “visiting expert” drop in for a chat. One submarine skipper spent a few



Former Test Center member and now FFG 7 crewmember, Gun Fire Control Technician 1st Class Jim Ferguson operates the Weapons Control Console (WCC #2).

days in the control center and ran them ragged in CIC, penetrating the screen time and time again. Before he left, test center personnel had a better understanding of submariners and their weapons system. A helo pilot also was able to add another chapter to the book of tricks—he'll be back, too.

Many problems have been uncovered during the past year or so, but the net result has been improvement of the system.

Shipbuilders from Bath, Maine, for instance, came down and had a look at the fire control room. They were aghast when they saw the layout—too many sharp corners, too

much boxing in of certain gear. They couldn't build it that way. Sperry went to the drafting table and after days of drilling with chalk, tape and pen, dropped the existing 13 corners to six with a blend thrown in for good measure.

The test center is proving its worth by helping planners to zero in on problems before the system is installed aboard ship.

As the outside of the building is deceiving in appearance, the inside also seems to be anything but what it is—its calm, unhurried atmosphere belies the vital, all-important mission. Everything looks calm but there is a certain

urgency in the air and there's a need to race the clock: *Perry* goes into commission this winter.

The combat system—its consoles, scopes and weapons systems—will be aboard and in perfect working order. The crew will be trained and efficient. It didn't happen overnight. ⚓

## Cast adrift from the regular Navy

It's a good thing the job presents challenges—otherwise the area could get them down. The 23 souls attached to the Oliver Hazard Perry Class Combat System Test Center at Ronkonkoma (L. I.), N. Y. are, in a sense, cast adrift from the regular Navy. Duty in New York these days—even in the middle of Long Island—presents certain difficulties.

Consider the following:

- Rentals are out of sight, perhaps among the highest in cost in the nation.

- Those who own their homes pay unbelievably high property taxes. One stated, "Twenty per cent of my total income goes to pay these taxes."

- The area has an 8 per cent sales tax, but moving to the city is out of the question—there they have a commuter tax as well.

- Travel on the Long Island Expressway "barrels" along at 15 mph during what has to be the world's longest "rush" hour; the expressway vies with the Brooklyn-Queens Expressway for the title "World's Largest Parking Lot."

- Mitchel Field, an old Air Force

Base, and a small Coast Guard Station, both about 35 miles away, supply the only available government housing, and this is only for married personnel. Long waiting lists are the norm.

In a way, it's a relief to start an occasional work day at 2400 or 0300; driving along the quiet, almost deserted expressway seems to make up for the missing sleep.

Lieutenant Commander Feeser, the Officer in Charge, points out yet another problem. "Our medical support is at the Naval Support Activity in Brooklyn—about 60 miles from here. Not only do we lose the person for five or six hours, but we pay 15½ cents a mile to boot. I dread anyone coming down with something more serious than a headache.

"Anything worse calls for the person going to the hospital at Philadelphia. Luckily, our people are dedicated—and healthy!"

The test center has taken up the slack for its single enlisted personnel by leasing four apartments nearby as quarters. About half the crew live at Mitchel Field or in Coast Guard hous-

ing. The rest have rented or bought near the test center.

Once settled into the community, the crew has found spare time for local endeavors. FTG1 Lew Volk has joined the Bohemia Volunteer Fire Department. FTMC John Farmer heads the Patchogue, L. I., Special Education Parent-Teachers Association and is on the board of directors of the Suffolk County Cerebral Palsy Association. ET1 Ed Anderson teaches a scuba diving course. LT Wyse, the Operations Officer, takes time to teach freshman physics at a nearby college.

As a group, the test center personnel have aided the Maryhaven School for Retarded Children in Port Jefferson, N. Y. One of the Waves taught cooking, some of the sailors teach woodworking, and others installed an emergency alarm system for the school. A public address system was gotten and installed at the Suffolk Rehabilitation Center for the Physically Handicapped.

Many would complain loudly about such irregular hours and the difficulty of living in a high-cost, over populated area. The 23 souls at Ronkonkoma complain some but spend their free time taking care of the less fortunate.

LT Wyse said, "We have an extremely motivated crew. I'm convinced that because of our work here, the entire Perry class will get to the fleet with an eminently operational combat system."

We add that because of their presence at Ronkonkoma, the community has gained as well. ⚓

# Classroom tactics hit the beach!

## Operation Dawn Patrol '77

With international tensions being what they are, readiness is a key word at NATO headquarters in Brussels. Signifying this concern for readiness, the amphibious assault exercise Operation Dawn Patrol '77 was launched in the early hours of May 11 at *Golfi de Teulada* in Sardinia.

The exercise was designed to test and improve NATO's ability to defend

her southern flank by rapidly placing additional military strength in strategic areas. Dawn Patrol '77 involved warships of Italy, Turkey, the United Kingdom and the U.S. Sixth Fleet.

Using tactics developed in classrooms and learned in actual combat, the NATO task force maneuvered through the "aggressor" force to land the elite of the U.S. and Italian Navies





and elements of the U.S. Marine Corps on Sardinia's shores. U.S. Marine Force Reconnaissance Team personnel and American and Italian Underwater Demolition Team members embarked upon clandestine night surveys of the target beaches.

The Underwater Demolition Team (UDT) searched out safe approaches to beach small landing craft. Also, if the enemy had placed obstacles above or below the waterline or if natural sand bars made the beachhead too shallow for navigation, UDT was tasked with removing those obstacles.

Force Recon is a highly trained team of Marines who provide data against the enemy such as gun emplacements, troop strengths and possible helicopter landing zones.

Throughout the night of May 10-11, information received from the special warfare groups on the beach was analyzed and charted for dissemination to the waiting task force. At first light, carrier-based aircraft thundered over the beachhead on surveillance and bombardment passes in preparation for the assault which followed. Amphibious ships arrived in the immediate area and unloaded dozens of assault landing craft; four waves of small boats churned toward the beach carrying tanks, supplies and hundreds of combat-ready troops.

Mayhem soon turned into order as NATO troops secured "enemy" strongholds and set up defense perimeters. For the man in the field the "war" was over; for the men in the command ships, the hours and days of analyzing the lessons learned had just begun.



*Top: Combat ready Marines await the call to join the "battle." Above: HTC Sprenkle of UDT-21 readies gear for surveillance operations. (Photos by JO3 Mark DeWeese).*

# Solid Shield '77

Supplies, fuel and medical assistance are the crucial aspects of an amphibious landing. Teamwork and coordination are the means employed by the Navy/Marine Corps team in seeing that the men in the field get the necessary support when needed.

The opportunity to exercise and test the logistics support organization of the Navy/Marine Corps team came on May 7 when ships of the U.S. Sixth Fleet and elements of the 4th Marine Amphibious Brigade took part in exercise Solid Shield '77. The annual training exercise involved all four branches of the armed services.

The "battle theater" was more than 3500 square miles in the southeastern United States, centered around Camp Lejeune, N.C. and Fort Stewart, Ga.

Army and Marine forces simulated beach and airborne assaults on "enemy" held territory, while the Navy/Marine logistics force executed the logistics portion of the exercise to a successful conclusion.

The scenario for Solid Shield '77 went as follows: Country Blue is a democratic nation of long standing

friendship with the United States and has a bilateral mutual defense treaty with the U.S.

Country Red is a nation unfriendly to the United States and to Country Blue and shares a common border with Country Blue.

A series of border clashes broke out in early 1977 between Blue and Red over long standing boundary disputes. Negotiations encouraged by the U.S. collapsed and Red subsequently invaded Blue. The situation rapidly deteriorated resulting in the partial destruction or neutralization of Blue armed forces.

Country Blue invoked the treaty with the United States and requested U.S. military assistance. The United States honored the treaty and JCS directed Commander-in-Chief Atlantic to provide military assistance.

Unconventional warfare forces were infiltrated into "enemy" held territory on May 7. On May 12 an air superiority campaign was initiated in Joint Zone Blue airspace and evacuation operations were launched at Fort Stewart.

The evacuation of U.S. citizens and foreign nationals is a new tactical situation added to the exercise this year because past experiences in Southeast Asia and the Middle East have indicated the need for such evacuation plans.

Evacuees, played by 120 U.S. Army male and female personnel, were evacuated by Marines to Navy ships at sea.

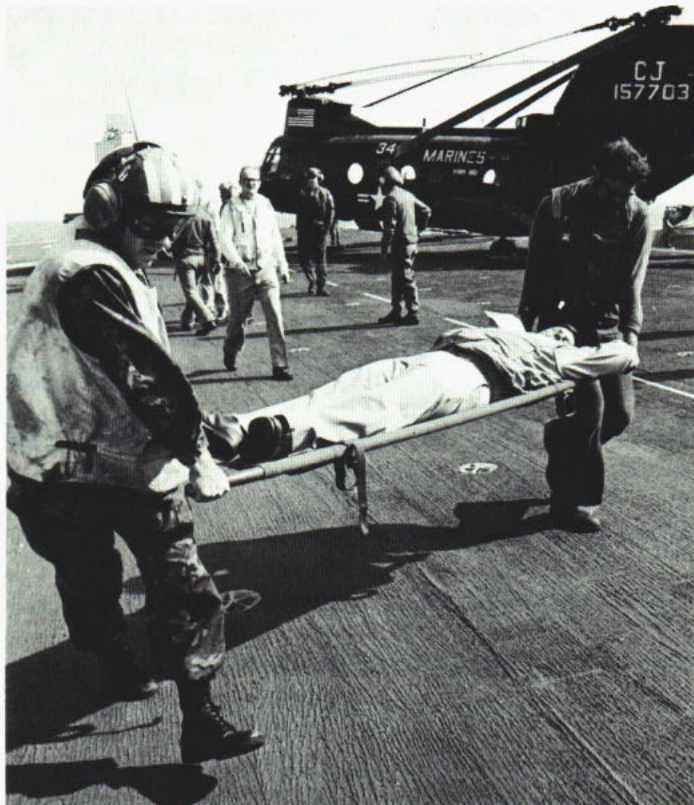
Female personnel were returned to shore before nightfall.

On May 17 simulated amphibious and airborne assaults were launched and with the Air Force providing air cover and the Navy guarding the seas, Marine and Army troops engaged and neutralized the enemy.

By May 25 the conflict was over and Country Blue was "secure."



*Above and right: After a simulated fire and explosion, casualties are evacuated. (Photos by LCDR J. Manias, Jr.)*



# SILENT WITNESS

STORY BY JO1 JERRY ATCHISON  
PHOTOS BY PH2 DWAIN PATTON

## Late in the evening, the lighthouse keeper awoke with a start

He heard a sound. Casting about for a weapon, he picked up a wooden bed slat and stood up. Then he heard the sound again and knew he hadn't been dreaming. Outside, someone was slowly mounting the steps to the quarters. The sound stopped as the intruder reached the porch. The keeper tightened his grip on the bed slat and moved quietly to the front door. He placed his ear against the door and heard the sound move across the porch and stop directly outside his door. Sucking in his breath and raising his weapon, he threw open the door.

There was no one there.

\* \* \* \* \*

The visiting Dutch veterinarian settled back for a long night's sleep after a hectic day of sightseeing in the area. It was his first trip to the United States and he had spent the day marveling at sights, not the least of which was the quarters he'd been given for the evening.

Who'd have thought, he mused, he would be spending the evening in the quarters of the oldest lighthouse on the Gulf of Mexico. He settled into the comfortable bed.

Suddenly there came a loud crash from the living room. The veterinarian

had draped his trousers over an easy chair in the living room before going to bed so his first thought was of his wallet and the possibility of a burglar.

He raced into the living room. Sure enough, the massive easy chair was overturned. But there was no one in the room.

The only thing missing from his trousers was his belt, a belt that was never recovered. He made the rounds of the room and checked the door and all the windows. All were securely locked and none had been broken.

\* \* \* \* \*

For those of you who thought we were describing the goings on in a lighthouse on some mist-shrouded island, guess again. This lighthouse, surrounded by more than 150 years of mystery, is on land belonging to the Naval Air Station, Pensacola, Fla.

The lighthouse sits near the mouth of Pensacola harbor guiding mariners as it has since 1828. To the casual observer it looks much like any of the other lighthouses populating the coast of the United States. But this lighthouse has a colorful and unique history all its own. The story begins two years before the lighthouse was conceived:

One of the first things the United States recognized in 1821 after pur-

chasing Florida from Spain was the importance of Pensacola Bay as a site for Naval squadrons operating in the Gulf of Mexico and the Caribbean.

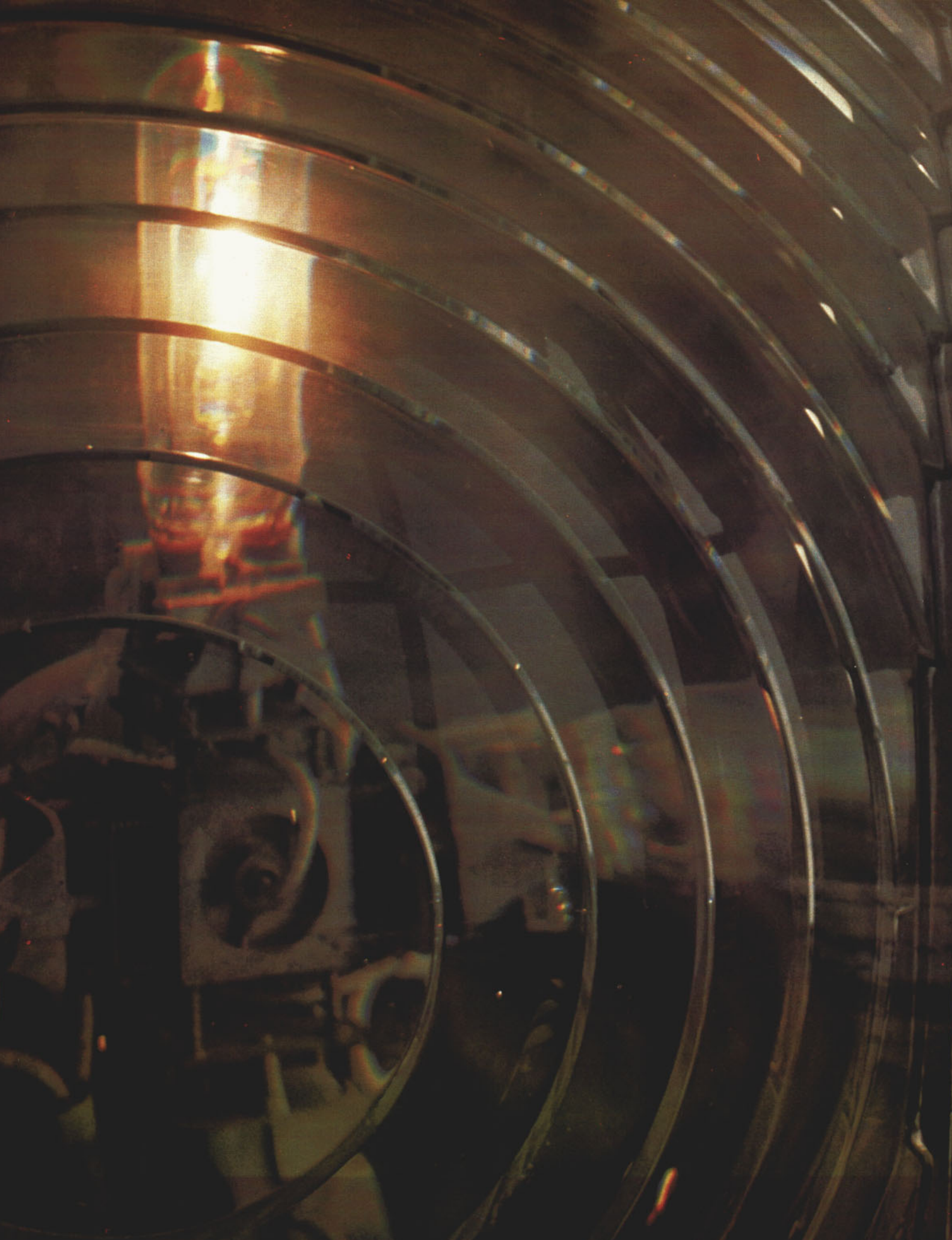
And, given that conclusion, one of the first things the U.S. government had to do was make the bay safe for ship navigation—hence the lighthouse.

It was completed in 1825 at the bargain price of \$6,000. In 1828, a fresnel lens for the lighthouse was cut and polished in Paris, France, by Henri LePaite. As a testimony to Henri's workmanship, it is noted that this original lens is still in use today at the same location.

The first lighthouse built by the United States Government on the Florida Coast was ready for operation—but it didn't operate quite as well as anticipated. The first tower was 40 feet high atop a 40-foot bluff. An 1832 lighthouse guide warned against depending on the light at night, when it should have been most useful. It seems trees on Santa Rosa Island to the east and on the mainland to the west obscured the beam.

Captain L. Rousseau of the Revenue Marine urged the Fifth Auditor in 1838 to move the light, "as to enable our cruisers to leave or enter the port at any time of the night."







This was particularly important to mariners of the period since Pensacola was the deepest haven on the Northern Gulf, with 21 feet of water at the entrance and as much as 36 feet in the harbor.

Congress authorized \$25,000 to rebuild the light using the best of apparatus. The new light, still in use today, was completed in 1858. Now located 210 feet above sea level, the beam is visible for 21 miles.

When the Civil War struck, Pensacola assumed added strategic importance for both the Confederate and Union troops. Besides the hundreds of Americans who died in battles in and around Pensacola, there was one additional casualty. Although the tower was struck repeatedly by solid shot from both sides, it appeared there had been no serious structural damage done. It was not until 1878 that the effect of the shelling was recognized . . . but more of that later.

When Union forces finally captured and held Pensacola, they attempted to relight the tower beam to aid Union ships. However, they found that the lens and apparatus had been dismantled and hidden. They erected a temporary light and set off in search of the original equipment. Four years after the war, the original lens and apparatus were finally found, reassembled and placed back in operation.

Men had taken a crack at destroying the lighthouse and failed. After the Civil War it was Mother Nature's turn.

In 1875, the tower was twice struck by lightning, melting some metal fixtures and breaking several large holes in the covered brick walkway connecting the tower and quarters. But, once again, no physical damage to the tower was discovered.

Lightning didn't do the tower in so nature threw periodic hurricanes against it.

Taken separately, these periodic buffetings had no telling effect on the tower. Then, in 1878, engineers discovered that the Civil War shelling and subsequent hurricanes had combined to cause cracks below the lantern. The tower was refurbished top to bottom and painted with the color scheme it sports today, the top two-thirds black, the bottom third white.

But if man had stopped trying to knock the tower down, nature hadn't. On August 31, 1885, a rare earthquake struck the area. The Pensacola Station clock was stopped by the quake at 9:07 a.m. The lens shook from side to side and the tremor "was accompanied by a rumbling, as if people were ascending the steps, making as much noise as possible," according to published reports of the day.

Still, despite it all, the lighthouse continues today to flash its beacon at ships in the harbor, seemingly unperturbed by the disruptions of the past. Over the years, a steady procession of lighthouse keepers climbed the 190 steps up the spiral staircase every four hours to check the kerosene level, trim the wick, or perform required maintenance. Nowadays the light source is furnished by electricity and the operations are automated. When the sun sets or when heavy weather or blanketing fog roll into the harbor these days, light sensors automatically activate the light.

And since the lighthouse keeper's quarters are no longer required, NAS Pensacola's Special Services has taken over the spaces—renting them out Navy Lodge fashion to an occasional visitor. Which brings us back to the



*A 150-year-old lens along with water-spouting gargoyles are only two of the many distinctive features of Pensacola Lighthouse.*

noise on the porch and the overturned chair.

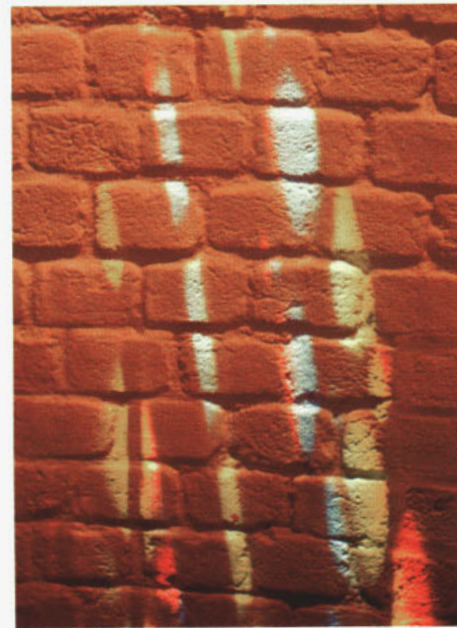
According to Sandy Morden of Special Services the noises are caused by a "friendly" ghost who stalks the lighthouse keeper's quarters. Sandy, by the way, also takes pride in the fact that she is the only woman on the Special Services staff who doesn't mind entering the quarters alone. "The rest of the girls travel in pairs around that place," she said.

As to the ghost's identity? No one knows. Nor has anyone actually *seen* the ghost. Or, if someone has seen the ghost, they're sure not talking.

In any event, the original lens in the Pensacola lighthouse turns 24 hours a day (in order to prevent the lens from focusing light on any object and setting it afire in the daytime). Nowadays it is visited only by the occasional Coast Guardsman who gives the lens a quick shine and checks out everything else.

Should you decide to take advantage of the Special Services' offer of lodging in the old quarters, the best advice would probably be to keep an eye out for an apparition sporting a new belt. ⚓

*Clockwise from right: A Coast Guardsman cleans the massive lens from the inside. Sunlight, in a kaleidoscope effect, bounces multi-colored off the tower's wall. The spiral staircase has 190 steps to the tower—for those who care to count.*



# Information Exchange

**Q.** *I purchased a home in 1957 and had the loan guaranteed by VA. I sold the home and the loan has been paid in full. Is it possible for me to obtain another VA-guaranteed home loan?*

**A.** Since you disposed of the home and the original GI loan has been paid in full, your loan privilege can be restored. Contact your nearest VA office for full information.

**Q.** *Does the Navy exchange make a profit?*

**A.** Yes. The exchange makes a profit, but every cent of net profit (the money left over after all expenses are paid) is returned to the men and women of the Navy in the form of morale and recreational facilities and equipment.

The exchange makes a heavy contribution to local recreation funds and to the Navy Central Recreation Fund. The money is used to support activities such as hobby shops, bowling alleys and movie theaters; buying recreational equipment, sporting goods and supplies; upkeep of ball fields, golf courses, swimming pools and other morale and recreation programs.

In fiscal year 1975, for example, the contribution to recreation programs generated by all Navy exchanges amounted to \$66 per active duty person in the Navy.

**Q.** *What specific missions does the Military Sealift Command (MSC) perform?*

**A.** The command has five basic missions. One is to provide sealift for deployment and support of military troops in an emergency. MSC also is charged with delivery of military sea cargo worldwide in peacetime, which helps the command fulfill a third mission—to develop and maintain the expertise and assets necessary for expansion in an emergency.

In addition, MSC operates ships for other Navy units such as the Oceanographer of the Navy and Naval Research Laboratory. More than 25 ships are involved in ocean research and surveys.

A fifth mission involving 16 ships is perhaps better known within the Navy—fleet support.

**Q.** *Does the Navy censor or cut movies?*

**A.** No. Paragraph 214 of the Navy Motion Picture Service Manual specifies that "Navy motion pictures will not in any way be censored, altered or cut by any users thereof. The Navy Motion Picture Service procures the 'as is' commercial theater version of all feature pictures. Commanding officers may decide not to exhibit certain pictures in their command if, in their opinion, its exhibi-

tion would have an adverse impact on morale, but no alteration will be made."

**Q.** *I have an idea that, I think, could improve the safety of rigged brows. Is there any way I can communicate it to the Navy's surface forces?*

**A.** Write out your ideas on a Surface Ship Safetygram. A Safetygram can be filled out in pen or pencil, and requires no postage. It should be made out with carbon copies and mailed as the instructions on the bottom of the form indicate. Your ship's safety officer can assist you.

**Q.** *Are Navy and Marine Corps women members who are pregnant when separated upon expiration of their active-duty obligation, or who elect separation because of pregnancy, eligible for maternity care in military facilities at government expense?*

**A.** Yes. There are three important points to remember:

- The Government will only pay for care provided by a military medical facility. This means that the Navy will not pay for civilian care even if there is no military medical facility nearby, or if the military medical facility cannot provide maternity care.

- The pregnancy must have begun while the member was on active duty. Members who were pregnant at the time they entered on active duty are not covered.

- The former member should apply, with her separation papers, to a Navy medical facility at least 30 days prior to confinement. If a Navy facility is not available, she may apply to an Air Force or Army medical facility that offers maternity care.

The nearest Health Benefits Counselor can tell you if the military facility nearest your intended residence has maternity care capability.

**Q.** *I am a Reservist on three years of active duty and I have not passed the E-4 exam. Therefore, I have not met professional growth criteria for reenlistment. Can I agree to extend my active duty obligation for a period of time other than 12 or 24 months, as indicated in BuPersInst 1133.22E?*

**A.** Yes. A 12- or 24-month extension of either active duty or enlistment can be authorized by your command. However, a request for such extension for any other period of time must be made to the Chief of Naval Personnel.

# 'I put myself in the player's position'

Navy head football coach George Welsh is beginning his fifth season at the Academy convinced that the midshipman are going to be a team that must be reckoned with in the fall.

With spring practice completed and many of the players on their summer training cruises, Coach Welsh had time to talk with ALL HANDS about his team and a new position—that of Special Assistant to the Chief of Naval Operations for Physical Fitness—for which he was recently selected.

"I believe physical fitness is important to the individual," he said during the interview at the Naval Academy. "And it can be done anywhere—including aboard ship."

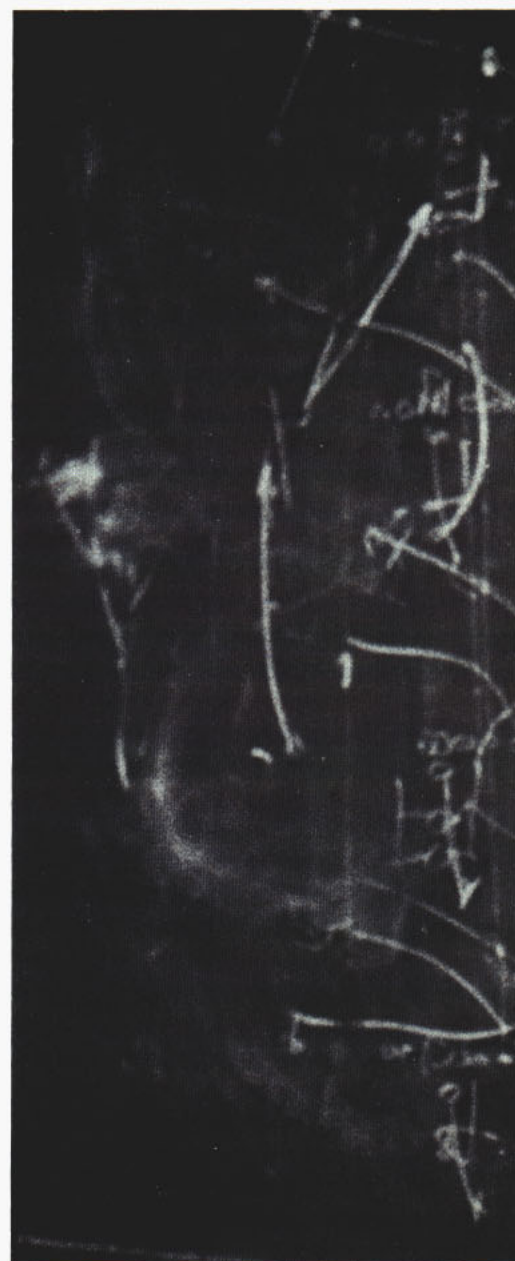
Here's why George Welsh knows what he's talking about: As the midshipman starting quarterback for three seasons (1953-55), he smashed eight different Naval Academy records and put together a Navy upset over heavily-favored Mississippi in the 1955 Sugar Bowl.

Assigned to USS *Des Moines* in 1956, Welsh played one year for the Norfolk, Va., Naval Base Tars. But torn ligaments before the 1957 season ended his active playing. After 32 months in *Des Moines* and a tour with the staff of Commander, Cruiser Division 5, Welsh returned to the Naval Academy in 1960 as a company officer. He assisted with the football program in 1960-61, helping guide the Midshipmen to the Orange Bowl in 1961.

Welsh left the Navy with the rank of lieutenant in July 1963 and joined the Penn State football staff a month later. He spent the next 10 seasons with the Nittany Lions, coaching the quarterbacks and offensive backs, before returning to the Academy as head football coach in 1973.

"Penn State is where I learned a lot about the business of coaching," he said. That experience, plus his playing days, have combined to make his own philosophy of coaching: "I'm always trying to put myself in the player's position when I'm coaching," he said.

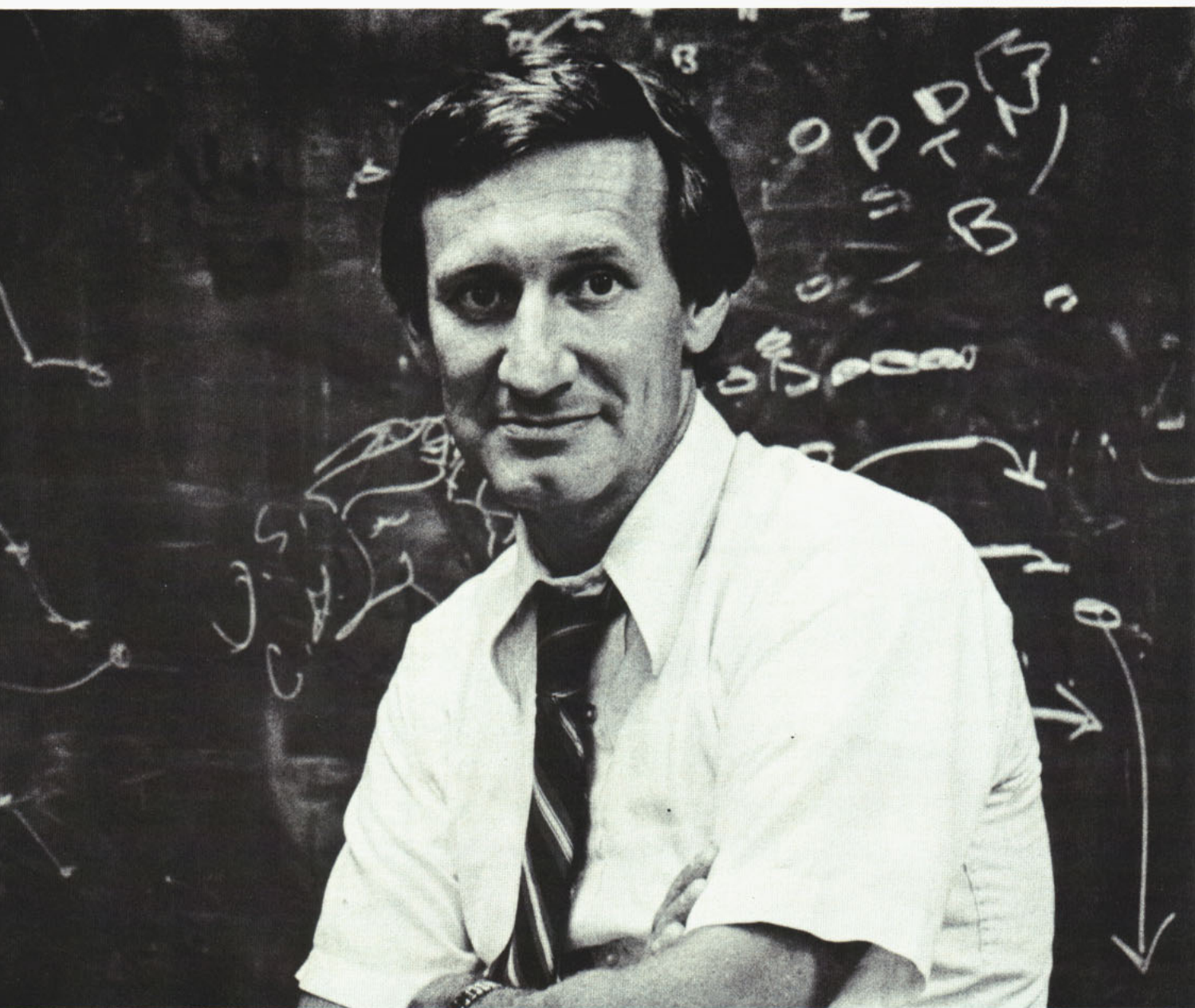
"The difference between football



when I played and today is that the game has become more sophisticated . . . and the players have become better athletes."

Welsh's experience as a Navy football player, officer and coach demonstrates reasons why he was tapped as the CNO's Special Assistant for Physical Fitness.

In this added role, Coach Welsh will serve as a public spokesman for Navy athletic programs, represent the Navy at athletic conferences and seminars, and provide advice and counsel to the Chief of Naval Operations, Admiral James L. Holloway III. His efforts will emphasize the importance of physical fitness and sports programs in the Navy.



"I know the steel decks of a ship can be hard on the legs," he said in response to a question about the special problems of keeping in shape aboard ship. "But individuals can tailor a program—like the aerobics program, for example—that will leave them feeling much better for their efforts."

If Welsh can appreciate the problems of staying in shape aboard ship because he was there, he can also appreciate the training of his football players for the same reason. "Our training also must take into account the rigid and demanding academic workloads for which each midshipman is responsible," he said.

And what of his team's chances in the fall?

"I'm optimistic. We've got a squad with a lot of returning veterans which is the opposite of last season," he said.

Although not reflected in the final win-loss mark of 4-7, Navy's 1976 team made a late season turnaround, winning their final three games and averaging 33 points and 430 yards of total offense in the process. The last win was over service academy rival Army (See Feb., 1976 ALL HANDS) giving Welsh victories over the Cadets in each of his four years at the Naval Academy.

"We made the mistake of not playing some of the freshmen sooner," he said. "Our game plan is pretty much unchanged this year but we're sure going to take a hard look at the

freshman squad early on."

Welsh understands football. But perhaps of greater importance is that he understands football as it is played at the Naval Academy.

"Football can be simple," Welsh said. "If you give the players this life-and-death stuff, you can make them too tight. Winning doesn't override everything else. Our approach is to do the best we can."

That has become a successful football philosophy at the U.S. Naval Academy, thanks to the officer turned coach, George Welsh. ⚓

# SLEP Extending



# the Life of Carriers

BY JOI JERRY ATCHISON

The U.S. Navy will meet its global responsibilities in the 21st century thanks, in part, to a program with the curious name of SLEP.

The Carrier Service Life Extension Program (SLEP) is being developed by Navy planners tasked with increasing the useful lives of eight conventional Forrestal- and Kitty Hawk-class carriers by an incredible 50 per cent. SLEP will extend the service life of these carriers 15 years beyond their expected 30-year service life, thus allowing the Navy to maintain 12 large deck aircraft carriers in the fleet.

Those extra 15 years will not simply be "borrowed time" for the older carriers. During their extended lives, the carriers will meet the dual objectives of reliable steaming and effective combat operations, using the latest aircraft and equipment.

SLEP will work like this:

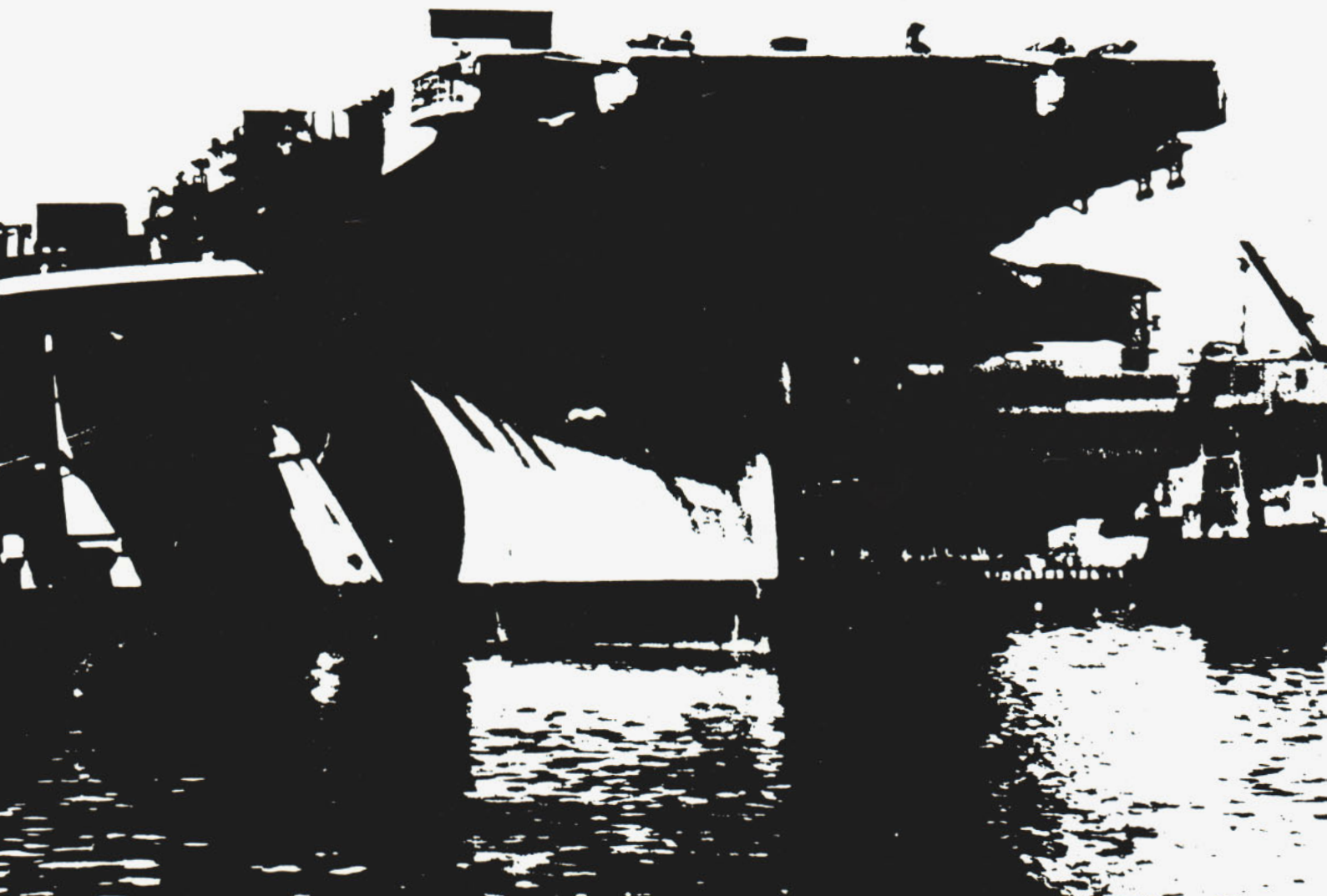
First—extensive and in-depth overhaul and refurbishment of basic hull, machinery, electrical and electronic systems will be accomplished on the carrier. These are the primary carrier systems that are heavily relied upon and, therefore, are often quickest to show their age.

Primary systems, along with other

systems, require significant repairs to guarantee the 15-year life extension. Because of this, major repairs will also be made to such things as the inner bottom and below bilge tanks. In addition, most previously deferred hull and structural repairs will be performed on the carrier in SLEP.

Auxiliary systems repairs will include vent system renewals and major repairs and replacement of piping systems throughout the ship.

Another requirement of the future indicates why *Forrestal* and subsequent class carriers were selected for SLEP and not some of the older carriers. Simply put, the 21st century aircraft carrier



must have a 21st century combat capability. Forrestal-class carriers are large enough to support adequate numbers of all present and anticipated aircraft—aircraft that will serve as the principal combat arm of future carriers just as they have in the past. In other words, the carriers retain growth potential.

SLEP carriers will also receive modernization of their pollution control systems, thus ensuring they meet expected stringent pollution control requirements of the future.

Finally, and of great importance to the thousands of sailors who serve aboard the carriers involved, improvements to habitability will be made throughout the carrier.

Aircraft carriers are one of the most complex weapon systems in the United States' deterrent arsenal. They are also one of the most effective. Because of this complexity, and the countless jobs performed by the 5,000 officers and men who man each carrier, SLEP will not be an easy job. Planners continue to examine such questions as what's to be done and when, where will it be done and how long will it take, how to

accomplish ship's company training on old systems and new, and the effect on ships operating in the fleet which fill in for the carrier in SLEP.

After much study, Navy experts have developed initial answers to many questions. Anticipated to cost between \$400 and \$450 million per carrier—SLEP is below the estimated \$1 to \$2 billion price tag for replacement of old carriers. Based upon extensive studies done by numerous Navy Department activities, SLEP will require a carrier to be in "Out of Commission Special" status (the status applied to ships undergoing extensive modernization or conversion, as designated by the CNO) for about 28 months.

Pulling a carrier from the fleet for SLEP will result in minor adjustments for other operational carriers. Current schedules call for USS *Eisenhower* (CVN 69) to enter service this fall. *Eisenhower* will replace USS *Roosevelt* (CV 42) which is scheduled for decommissioning at about the same time. USS *Vinson* (CVN 70) will become the 14th carrier in the Navy's inventory when she enters service in late 1980. There will then be 12 deployable car-

riers; plus one contingency carrier supporting Reserve air wing training, mobilization and other contingencies; and another carrier in SLEP.

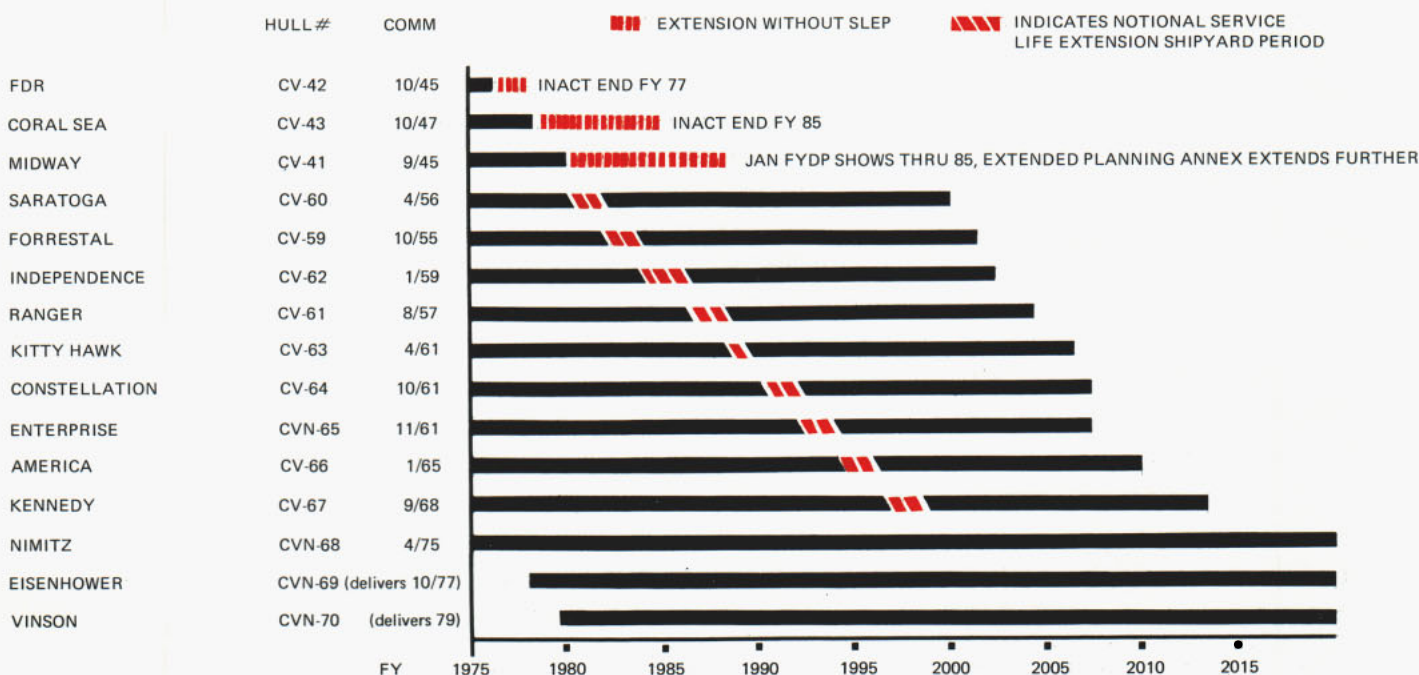
It can be seen, then, that the first aircraft carrier to undergo this program of extensive restoration will not do so until 1980. It is expected to return to duty in 1983. The accompanying chart shows how staggering the schedules of ships in SLEP—up to the year 2000—allows for minimal impact upon fleet readiness.

The massive program that is SLEP is by no means in its final form. The goal is solidly set: extend the life of these designated carriers from 30 to 45 years.

In view of the fiscal restraints of all the armed services, SLEP represents a positive solution to maintaining the U.S. Navy's readiness.

And some of the "grand old ladies of the fleet" will be possessed of capabilities that belie their years of steaming—thanks to SLEP, which isn't such a curious name after all. ⚓

CARRIER FORCE LEVEL PROJECTION/SERVICE LIFE EXTENSION PROGRAM (SLEP)



IF AUTHORIZED AND APPROVED BY CONGRESS CVV WOULD DELIVER IN 1986

# MARS Does It With Picture

"Stand by for transmission," said the operator of WA6IDN/WA1ZQP, flicking switches and turning dials. A warbled chirping sound erupted from the console and twittered steadily.

A TV monitor (screen) plugged into the console showed the image of a man aiming a camera. As the twittering continued, a horizontal line passed down the image, almost as if the horizontal hold needed adjustment.

"Hey, the photographer looks great at this end," said a voice from more than 3,000 miles away.

To some, this may seem as mind-boggling as "Captain James Kirk" ordering "Mr. Spock" to beam him up to the Starship Enterprise. But far from being science fiction, this transmission of a TV image across the breadth of the U.S. via radio waves was part of a little-publicized Armed Forces Day observance.

For the past 28 years, Armed Forces Day has been set aside by Military Affiliate Radio Stations (MARS) to conduct "cross band" tests; that is, to communicate with amateur radio operators using various modes of transmission.

Transmitted from the Coast Guard Radio Station in Alexandria, Va., and Naval Communications Stations in San Diego, Norfolk, and San Francisco, these tests give amateur radio operators an opportunity to demonstrate their technical skills. On Armed Forces Day, the message of the Secretary of Defense is transmitted via morse code, radio-teletypewriter and voice communication. Amateurs submit the



message exactly as they received it, and are awarded certificates for their participation. Each year, up to 3,000 certificates are awarded.

This year, for the first time, MARS used "slow-scan" TV, similar to the wire-photo system used by news services. A photograph—in this case a TV image—is scanned and relayed via radio waves. The "twittering" or sound can be recorded so that images or messages can be reproduced when needed.

Of 300,000 licensed amateur radio operators in the U.S. about 4,000 have slow-scan TV equipment. The radio station in Alexandria transmitted pictures as far as Vancouver, Wash., and Culver City, Calif.

Station WA6IDN/WA1ZQP—actually Bruce Johnson of the American Radio Relay League (ARRL)—brought his slow-scan equipment from Newington, Conn., and retired Navy Commander Frank Somers (N1FS) brought his equipment all the way from Cornwall, Vt. Johnson joined David Klemp (WA1AND) at the console, while Coast Guard Radioman 1st Class

Chuck Duvall (WB4BOX) operated the video-camera. Coast Guard Commander Ken Wasner (W3IKA) was also on hand throughout the day.

Retired Navy Captain Dave Veazey (W4ABY) coordinated the 14-hour broadcast day on the east coast and Retired Navy Captain Thomas Pollock coordinated operations on the west coast.

Several times during the day, communications were interrupted by a jamming signal. It sounded like a woodpecker pecking on a hollow tree.

MARS is most recognized for its involvement with telephone patches and MARSGRAMS, which enable military personnel overseas or aboard ships to communicate with their families in the States.

Summing up the day's event, Capt. Veazey said, "This is the one day of the year when the military shakes hands with the civilians over the air. Now we can do it with pictures." ⚓

# Bearings

## Aiguillette for Sharkey

Don Rickles (TV's CPO Sharkey) takes a break in filming to accept an Aiguillette Association honorary membership from USNTC San Diego Electrician's Mate 1st Class Bill Spears. The Aiguillette Association was formed to encourage camaraderie among Navy company commanders and to promote their welfare through charitable, educational and recreational programs.



## In the Neighborhood

A chocolate sundae plus two ship models—one of clay and the other made of cardboard and toothpicks—were highlights of the visit. It grew from an exchange of letters between USS *Oklahoma City* (CG 5), participating in overseas residency program in Japan, and fifth-grade students of St. Brendan's School in North Olmsted, Ohio.

Captain Paul D. Butcher was *Oklahoma City's* commanding officer when William Eichenberg, a school history teacher, wrote two years ago and

asked permission to name a classroom after his ship and correspond, as well, with the crew. The exchange of letters also included an exchange of tape recordings, cards and even gifts. The correspondence grew into a friendship.

Capt. Butcher was recently transferred to Washington, D.C. This made it possible for him to take the students up on an earlier offer to visit them anytime he was "in the neighborhood." He recently spent a day at St. Brendan's visiting classes and answering questions about Navy life, operations and his travels.

The North Olmsted students enjoyed the *Oklahoma* experience so much that other classes—the second, third, fourth and sixth—joined in and began corresponding with other ships. The other ships on the list were USS *Vulcan* (AR 5) USS *Claude V. Ricketts* (DDG 5), USS *Jouett* (CG 29), USS *Chicago* (CG 11) and USS *Concord* (AFS 5).

## 700th Out of 6000

Physical conditioning, perseverance and a goal can put you miles ahead of the crowd. If you're skeptical, just ask Marine Corps Captain Thomas P. Carney, combat cargo officer aboard the amphibious cargo ship USS *Charleston* (LKA 113).

His daily schedule of sit-ups, push-ups, pull-ups and running enabled him to join a very select group of athletes who have finished the tortuous 26-mile Boston Marathon. Carney ran America's most prestigious running event in April along with 6,000 other contenders; it was the largest turnout in the Marathon's 81-year history.

Twenty-five hundred of the contenders were "official" entries—those who had completed a previous marathon in a qualifying time of three

hours or less. The rest were there to participate in an event unparalleled except perhaps by the Olympics.

"There were so many people it took me two minutes of hard running just to reach the starting line," Carney said.

Long before the race ended, a conflict between body and willpower began to trouble most runners. Carney was no exception.

"I was never ready to quit," he said, "however, I played with the idea after eight miles. But the people along the route were great—they encouraged us and gave us refreshments the entire time."

Carney finished the race in three hours, 28-minutes; his place was "about 700th." Earlier this year, he placed 71st in his first marathon, the Shamrock, at Virginia Beach, Va. Still, the Shamrock's 450 runners didn't prepare him for the throngs he found in Boston.



## Tampa's Chief Duke

"Chief One, what's your 20?"

"I'm 1050 to 1006 31st Avenue. Looks like a Code 4. I believe Engine One is already on the scene."

"10-4, Chief One."

What's a "Chief One"? In this case, despite the lingo used, it's not a CBer's handle and although the "Chief" is a Navyman, it's not a new form of salutation either. The "Chief" is James E. Duke, a reserve Senior Chief Boat-

swain's Mate and Tampa, Fla. District Fire Chief. Any way you look at it, Duke's a chief.

Duke is attached to reserve Military Sealift Command 208, in Tampa, which is responsible during emergencies in assisting MSC in coordination of sea transportation of personnel and cargo. Coincidentally, Duke's previous fire fighting assignment was also a sea-going one. He was captain of the fireboat which provided the only fire protection for Tampa's 21-mile shore line,

Still, speaking of coincidences, the fire chief was a fireman apprentice in the Navy during World War II which, of course, has nothing to do with being a fire fighter but, then . . .

## Trippe Takes a Trip

Sure, sailors have heard of ports like San Diego, Norfolk and Rota—but Monrovia, Lomé and Abidjan?

Recently the crew of USS *Trippe* (FF 1075) visited these three West African ports while enroute to the Mid East. Before you all rush off to your atlases, be advised Monrovia is in Liberia, Lomé in Togo and Abidjan in the Ivory Coast.

Although this was the third Mid East

cruise for the *Trippe*, it was the first visit of a U. S. Navy ship to Lomé since 1967 and to Abidjan in the last three years. And as far as port visits go, it was anything but routine. More than 4,800 people—many of whom had never seen a U. S. Navy ship—visited *Trippe* and were treated to the *Trippe* band, beverages and snacks.

In each of the ports, Navy men were, in turn, entertained with dinners, receptions, dances and sporting activities held in honor of the ship.



## Making an Impression

Dental Technician 1st Class Larry Hamill didn't think he was going to have a very good day in the prosthetics lab at the Branch Dental Facility at Patuxent River Naval Air Station.

The boss had just told him that his first patient would be a wounded tomcat. When Hamill objected to putting his hand inside the animal's mouth, he was told it was the other end of the tomcat which needed his attention.

Hamill finally accepted the job (how do you say "no" to a captain?) and then recruited Dental Technician Seaman Curtis Morgese to work with him. Morgese wasn't particularly enthused about the idea either, but it's not easy for a seaman to say "no" to a first class petty officer, either.

Now that it's over and the plaudits are rolling in, Hamill and Morgese



# Bearings

consider it one of their more rewarding days. The 20-ton tomcat aircraft had been perfectly still throughout the two-hour operation. The two false teeth specialists had finished all three required casts by the end of the day.

Even more pleased were the maintenance men at the Air Test Center who had asked the two technicians to make a model of a damaged part in the tail section of the F-14 *Tomcat* aircraft.



## Statuary Performance

"Man overboard, starboard side! Man overboard, starboard side!" USS *Decatur's* (DDG 31) alarm sounded; sailors raced to emergency stations. Helm and engine orders were passed quickly—Oscar had done it again.

The crew scurried about *Decatur* preparing to retrieve ill-fated Oscar as he bobbed in the ship's wake. Fishermen in the bay also spotted him and decided to assist in the rescue. Every-

one's concern was for Oscar.

Here, the record becomes somewhat confused.

As *Decatur* approached Oscar, so did the fishing boats and suddenly he was no longer visible. Rumor has it: Oscar befriended a fisherman—then, a fisherman befriended Oscar; a strong current caused by the converging ship and fishing boats whirled Oscar ashore; Oscar had a sweetheart on the beach and swam all the way there underwater; he went scuba diving; and,

finally, he was on a secret mission.

There were many other stories.

What is known is Oscar was not rescued by *Decatur's* crew, nor was he brought back aboard that day. In fact, when he finally returned, 15 days later, it was across the quarterdeck—in the usual way—when *Decatur* returned to port at Subic Bay. He was accompanied by three sailors from the Philippine Coast Guard detachment at White Rock Beach, Subic Zambales.

His absence from *Decatur* generated many other stories which have not been verified, since by nature Oscar ascribes to silence.

One story does have merit, yet comments on it vary. Some say Oscar was imprisoned by the provost marshal, yet on his return to the ship, he had a letter of appreciation in hand which read in part:

"During the period from 15 March 1977 to 30 March 1977, your performance with the Office of the Provost



Marshal has been statuary. Upon arrival in the operations office you took up your post, and manned it throughout your stay in an immobile manner. You are to be commended for the sil-



ence and complete composure you maintained throughout your stay with OPM. Your presence was a morale-building factor for all who had the pleasure to observe you.

"Oscar, I would like to take this opportunity to extend my sincere appreciation for the services extended during your tour with the Office of the Provost Marshal. If you should again become disoriented in the waters of Subic Bay, do not hesitate to call on this office. Bravo Zulu."

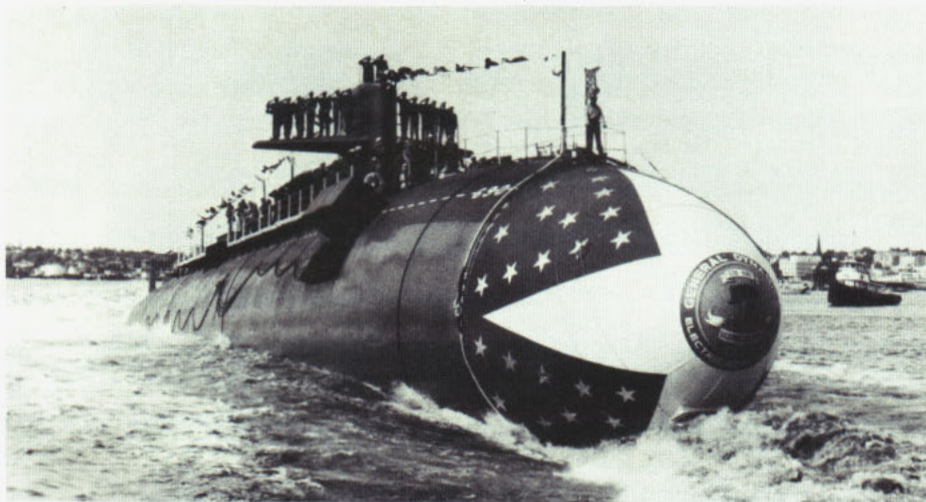
The citation was signed by the Provost Marshal, Colonel R. B. Twohey, USMC.

How Oscar returned and why he remained away as long as he did is still a mystery. What's important to the crew of the *Decatur* is that Oscar, the ship's man-overboard dummy, is back riding high and dry (and probably looking forward to his next swim.).

## Two More Join Fleet

Although they were unable to attend the ceremonies, Pierre Iberville and William Penn would have been proud to have received invitations to the June 25 commissionings of the Navy's latest *Los Angeles*-class submarines. The class tripled in size when USS *Baton Rouge* (SSN 689) and USS *Philadelphia* (SSN 690) were commissioned in Newport News, Va., and

Groton, Conn., respectively. Each displaces 6,900 tons, measures 33 feet in the beam and is 360 feet in length. But if the subs weren't named Iberville and Penn, what do these two have to do with a sub commissioning? Simple, Iberville, in 1719, founded Baton Rouge (La.) — French for "Red Stick" — and of course, Penn, in 1682, founded Philadelphia, the "City of Brotherly Love."



Use Your Head  
When Swimming  
This Summer...

Don't Become  
a Statistic



## RESERVISTS WITH DESRON 28

# Trading Ledgers



Above left: Reservist BMCM James L. Murphy, Jr., directs the securing of USS Edson's motor whaleboat, Above: Barber, SHSN Worden A. Dorsey, gives SA Scott W. Merrill a haircut. (Photo by FN Jim Borland).

# for Sonar Gear

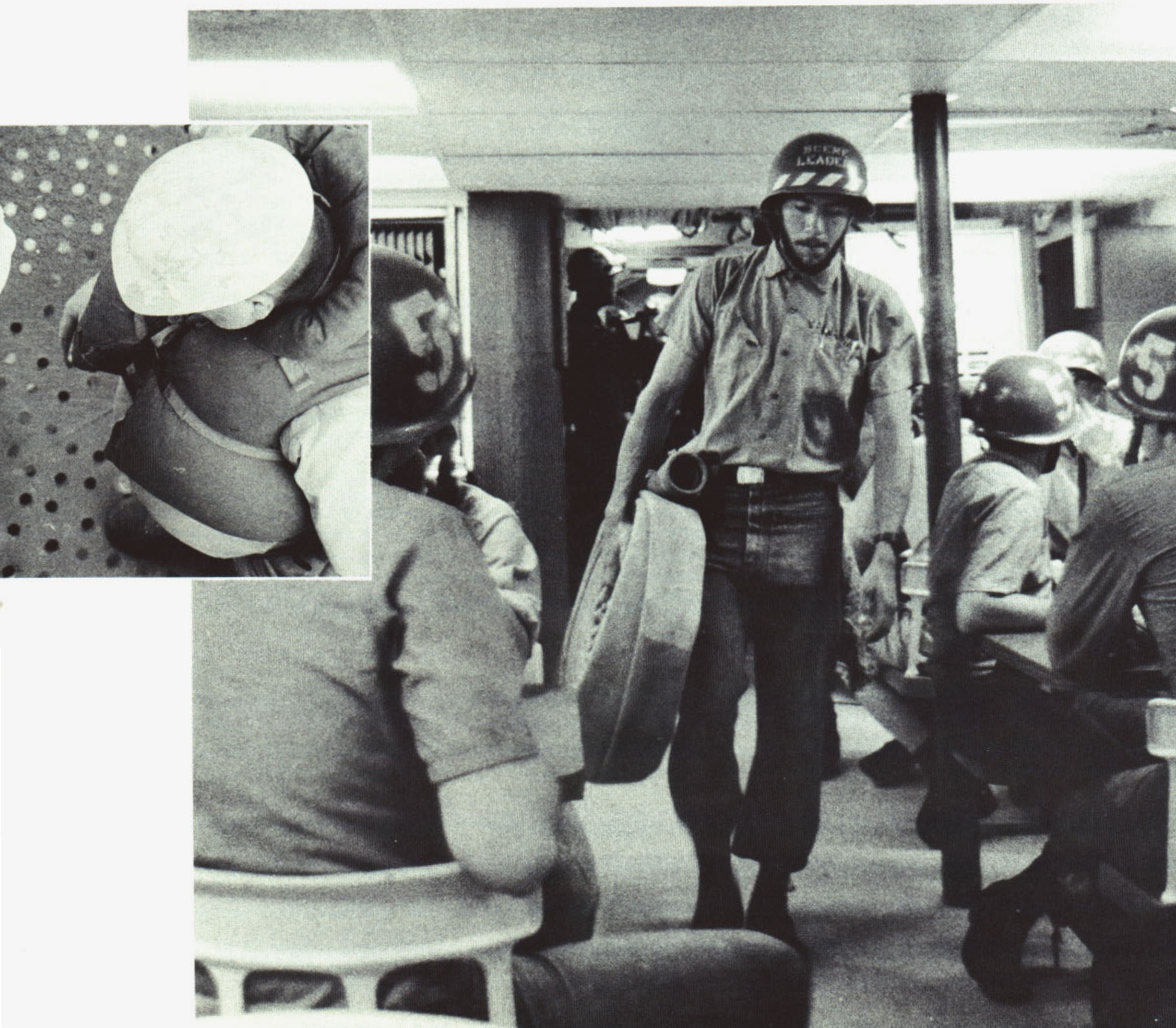
BY JOC DON RICHIE

Some people—sailors and civilians alike—have the idea that a Navy Reservist's two weeks of active duty for training amounts to some sort of paid vacation. Had they observed the activities of Destroyer Squadron 28 this spring, they

*Below: HT3 Daniel M. Valleroy, on board USS Edson, serves as scene leader during a damage control drill. (Photo by FN Jim Borland).*

would have thought differently. During 14 days of intensive drills in the Atlantic, reservists, comprising one-third of the ships' crews, tested their mettle.

During the intricate drills and exercises, reservists served in their usual billets on the bridge, signal bridge, CIC, main control—in all places throughout the ships of the squadron. These reservists, filling out each ship's complement, worked long and hard to distinguish themselves. In the process, they became indistinguishable as they blended



## RESERVISTS WITH DESRON 28



with the regular crewmembers.

"We totally support the one-crew concept in Naval Reserve ships and aircraft," said Commander A. A. Nannini, USNR, the Selected Reserve Coordinator on board USS *Edson* (DD 946). "We support complete integration of reserves and regulars into a single crew for each ship."

Unlike earlier times, Naval Reserve Force (NRF) ships today spend as much, even more, time at sea as they do pierside. It shows in the results. Result—a number of the once-a-month and two-week "summer" reserve crewmembers in DesRon 28 have become old hands through continuous exposure.

Each member knows he had better feel that way if he is going to make it. Each is expected to be a professional in his rating or speciality and stand assigned watches in his capacity as a permanent member of the ship's crew. "In my opinion," said Chief Operations Specialist John Pruden, "shipboard training is the most effective program the Navy Reserve offers its members." Though Pruden is a sales engineer with a company manufacturing furnaces and incinerators for municipal buildings during his "off duty time," while on duty, he is the CIC-radar communications officer in USS *Dyess* (DD 880).

Unlike Chief Pruden, some reservists don't get a complete change of vocations when they come on active duty—some see their reserve training as a continuation of their daily work. One is Lieutenant Charlie Brush the acting navigator in *Dyess* who works for a company that trains merchant crews and teaches navigation, fire fighting and radar operation. When he reports for active duty, Brush is ready—he comes aboard carrying a German Plath sextant—and his attitude says, I'm a full-timer. "I love the sea and the freedom it offers," Brush said. "When I'm on ACDUTRA, I have only one boss, the captain, and I'm free to work uninterrupted at being navigator."

Most NRF ships are among the oldest in the fleet—some are older than the average crewmember who serves aboard. In spite of their age, they get no special consideration, but are put through extensive training maneuvers and exercises like regular ships.

"This ship (*Dyess*) is very functional and obviously well built even though she has been afloat for more than 33 years," said Boiler Technician 1st Bill Bartel. While at sea, Bartel tends the engineering plant. In civilian life, he is a deputy county sheriff in New York state. In spite of occupational constraints, he found time last year to spend six

*Left: LT Charlie Brush, acting navigator aboard USS Dyess during his two weeks of active duty, brought his own sextant along. (Photo by JOC Don Richie).*

consecutive weeks on active duty—all of them at sea.

Another *Dyess* reserve crewmember BMC Matthew Conlon, Jr., has a sort of parallel between his civilian and military life. A former policeman, the Staten Island resident is a supervising fire marshall who investigates fire-related homicides and injuries in the New York City area. In the reserves, he is involved in damage control as well as unrepairs and refuelings.

"A ship is where it's at," Conlon said. "You learn a lot about yourself at sea, and cruises give superiors a chance to gauge everyone's performance under realistic conditions."

On board USS *William R. Rush* (DD 714), Reserve Lieutenant Henry White found himself conning the ship during an unplanned small craft rescue while other reservists helped coordinate the recovery from the fantail. Regardless of the situation, reservists are expected to react correctly and quickly.

Another reserve crewmember Master Chief Boatswain's Mate J. L. Murphy is no stranger to the deck of a Navy ship. He has 31 years of deck experience and served in World War II during Leyte Gulf and Okinawa. Still he doesn't hold the record for the most service in the reserve force of DesRon 28.

Chief Machinist's Mate Francis D. Murtagh, at 54, thinks his 37 years have the record, for now. "I'm going for 40," Murtagh said, "and then I'll decide if I want to make it a career!" Murtagh served in the carrier *Hornet* when she carried Colonel Jimmy Doolittle and his B-25's on their famous "thirty seconds over Tokyo" raid. The reservist claims that he is "just an old hand keeping up with the young guys—my boys. I see myself as I was years ago. But don't get the wrong idea, I'm still too young to be a grandfather!"

A certified public accountant, Mark E. Ruocco of West Hempstead, N.Y., trades his ledgers for sonar gear during his ACDUTRA. The Sonar Technician 3rd likes the work and doesn't shy away from the underway chow either. "The regulars tell me that they really eat great when the reserves come aboard," he said. "I've noticed more and more of them in the chow line before they go on liberty."

Part of the reason for that phenomenon might be explained by a "ringer" that came aboard with the reserves, Mess Management Specialist 1st William Sawyer. In civilian life he is a dietary cook supervising the main kitchens of the N.Y. Department of Hospitals. He brings many years of galley expertise with him when he comes aboard. Observed Sawyer, "Good lean food is necessary to go with the leaner look for sailors these days."

The reservists bring their professionalism from the work-

a-day world into the Navy and often it is rewarded with a "well done." Such was the case during this year's DesRon 28's spring cruise. The squadron was tasked with stalking the carrier *Saratoga* (CV 60) under darkened ship conditions in support of the carrier's Operational Readiness Exercise (ORE). Throughout the night, DesRon 28 ships tracked and "attacked" the "birdfarm" until first light when *Saratoga* retaliated with low-on-the-deck air attacks that kept destroyer personnel on their toes.

Afterward, Rear Admiral J. B. Linder, Commander Carrier Group Four, sent the following message: "DesRon 28, acting as missile attack group . . . provided outstanding opportunity for CV 60 and the Combat Fighting Wing Three. Planning and execution of realistic threat reflected high degree of professionalism. Bravo Zulu, all commands."

Though the work is hard, the hours may seem unending, there is still time for some well-deserved liberty. USS *Charles P. Cecil* (DD 835) made a Miami port visit during one weekend's respite from "combat conditions." This fell in with Cecil's traditional barbecue event and made for an excellent mini-vacation—the only one of the cruise. USS *Vogelgesang* put in at Palm Beach for an R and R weekend interjected between two weeks of hard, at sea training.

Most of the other DesRon 28 destroyers pulled liberty at Port Everglades (Fort Lauderdale). Even though colleges and universities were recessed for spring break at the time and thousands of students flooded the area, "We still had a fabulous time," said one happy reservist.

Both regulars and reservists worked hard and played hard during the cruise, and when it was all over, ComDesRon 28, Captain Edward C. Whelan, added the last word:

"This has been a successful operation. The Naval Reserve Force is a good compromise to achieve a greater total force. With older ships and limited resources, the men of DesRon 28 have tried harder . . . and can be proud of their accomplishments. The exercises and standards are the same for an NRF ship as they are for any other ship. These sailors handled the fast-paced days with a confidence . . . they have proved they can compete with the best." ⚓

# THE NAVY'S VITAL LINK WITH SPACE SHUTTLE

BY JO2 DAVIDA MATTHEWS

All of our nation's efforts—Mercury, Gemini, Apollo, Skylab—have barely scratched the surface of space. It is still virtually untouched by man. With the Space Shuttle Program, this nation is taking a big step toward tapping the real potential of space exploration.

Shuttle is NASA's answer to the high costs of space travel. It is not only reusable but also economical. It will be just as necessary to our nation's future in space as trucks, trains and ships are vital to America's economic life and well-being today.

By the 1980s, if all goes as planned, there will be shuttles blasting off from earth on the average of once a week, making space travel an almost routine daily occurrence.

A vital link in the success of the Space Shuttle Program will be the men and women who fly her.

Traditionally, Navymen have been forerunners in space exploration. Alan Shepard, then a Navy lieutenant commander, was the first American in space. His 15-minute flight in Freedom 7 on May 5, 1961, set the pace.

Of the 31 manned space flights NASA has launched to date, only two flights did not have Navymen either as part of the prime or backup crew. And, perhaps the most impressive—of the 14 men who have walked on the moon, nearly half (six) were Navymen.

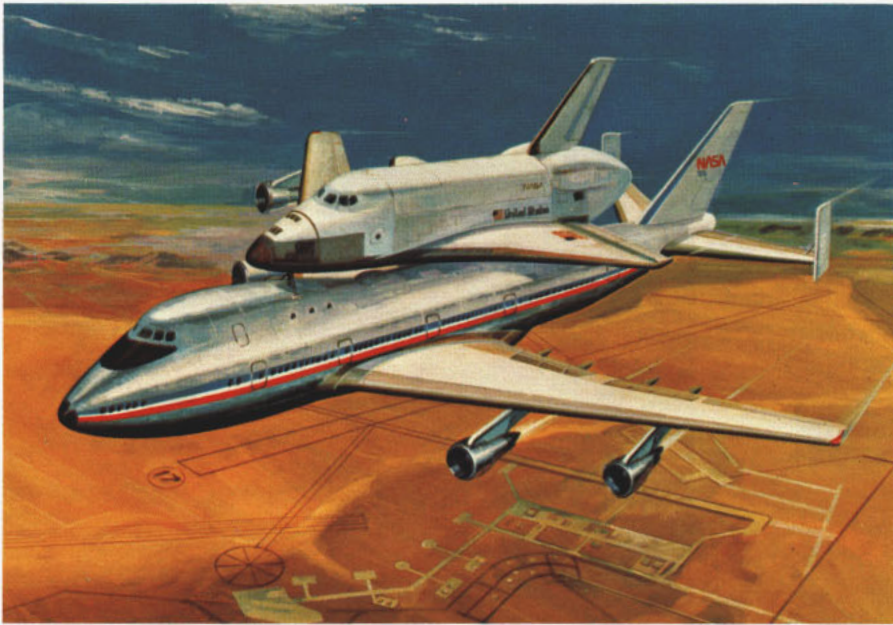
The Johnson Space Center near Houston, Tex., is the astronauts' home "office;" there are no Flash Gordons here. These men are down-to-earth, just doing their jobs.

Most are small and wiry—average height is only 5'10".

One of the requirements for the first group of astronauts was that they be no taller than 5'11". Later, this restriction was raised. Kerwin, at six feet is the tallest of the five Navy astronauts now on active duty.

A Navy captain, Dr. Joseph Kerwin has been on active duty in the Medical Corps since July 1958. He served two





*Facing page: Full-scale mock-up of Orbiter with payload bay doors open. Left: Orbiter rides piggy-back atop a modified 747 jet for approach and landing tests. Below: Shuttle reenters atmosphere.*



# SPACE SHUTTLE

years as flight surgeon at Cherry Point, N.C., earned his wings in 1962, then became flight surgeon for Fighter Squadron 101 stationed at NAS Oceana, Va. He was subsequently assigned as staff flight surgeon for Air Wing Four at Cecil Field, Fla.

Capt. Kerwin became interested in the space program after two of his friends applied and were accepted. "Through them, I could follow closely just what training they received to become astronauts. It was fascinating.

"When NASA asked for applications for the selection of a group of scientist-astronauts, I felt it was only natural that I apply. The space program was the next logical step in a career I enjoyed."

The training that so fascinated Capt. Kerwin is auduous. An astronaut learns a lot more than how to fly a spacecraft. In essence, he goes back to school.

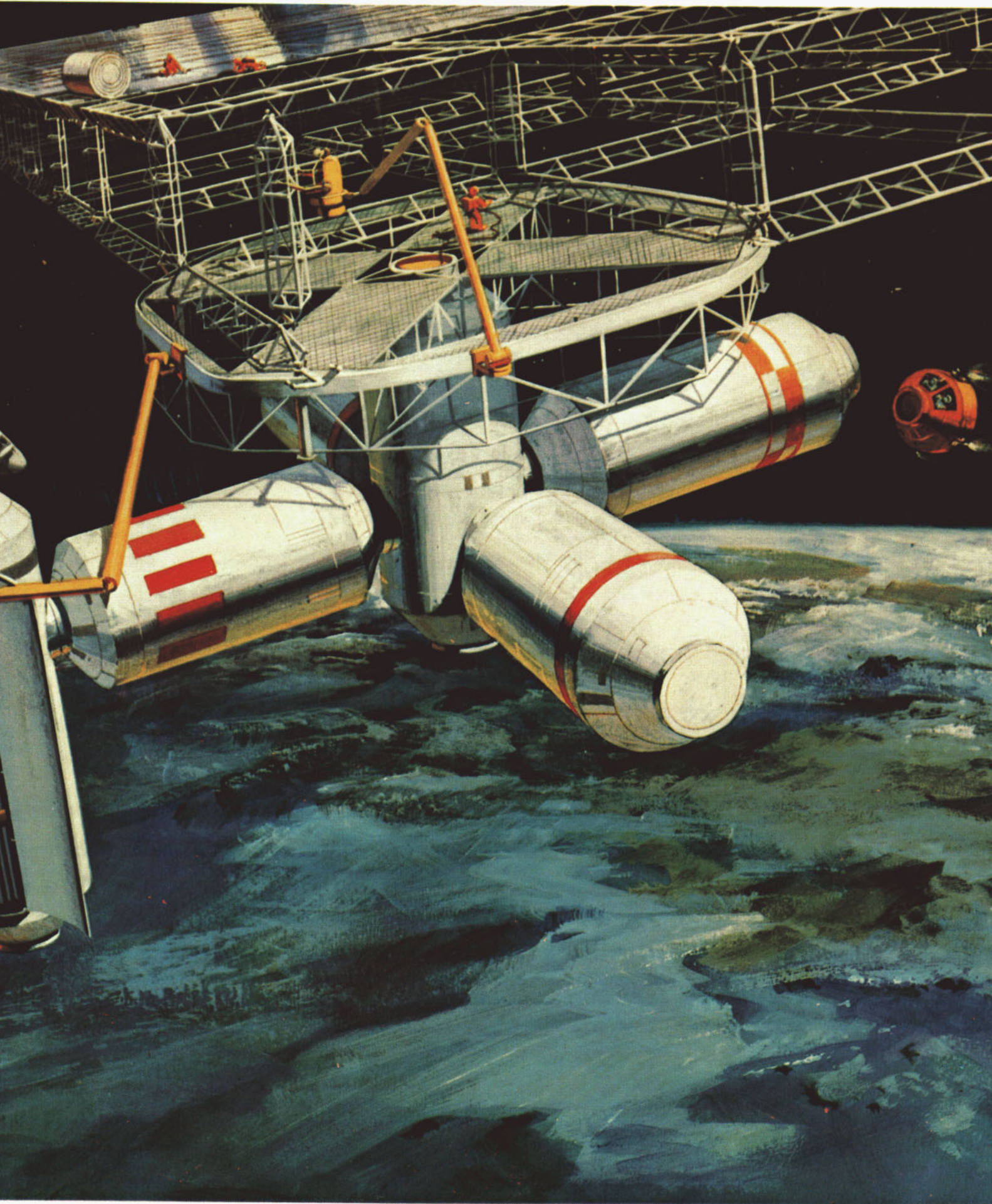
An astronaut-trainee studies basic science and technology courses such as flight mechanics, guidance and navigation, upper atmospheric physics, digital computers, meteorology, astronomy or geology—complete with field trips to areas of geological interest.

Then the trainees are put through a series of simulations to familiarize them with the environment of space. They experience weightlessness, acceleration forces during launch and reentry, and the moon's gravitational pull, all in the relative safety, figuratively, of their own back yard. They are even taught how to survive in the jungle or the desert in case some emergency ever brings the spacecraft down in an unplanned landing area.

In addition, it is the astronaut's responsibility to keep abreast of spacecraft and launch vehicle design and development activities. Not only is he expected to know what is going on, but also to contribute to the engineering design process. The astronauts are also required to maintain their normal flying proficiency in T-38s at nearby Ellington Air

*Below: Cockpit interior. Right: Shuttle will service future space stations.*





# SPACE SHUTTLE

Force Base. Schedules are always hectic; the training never stops.

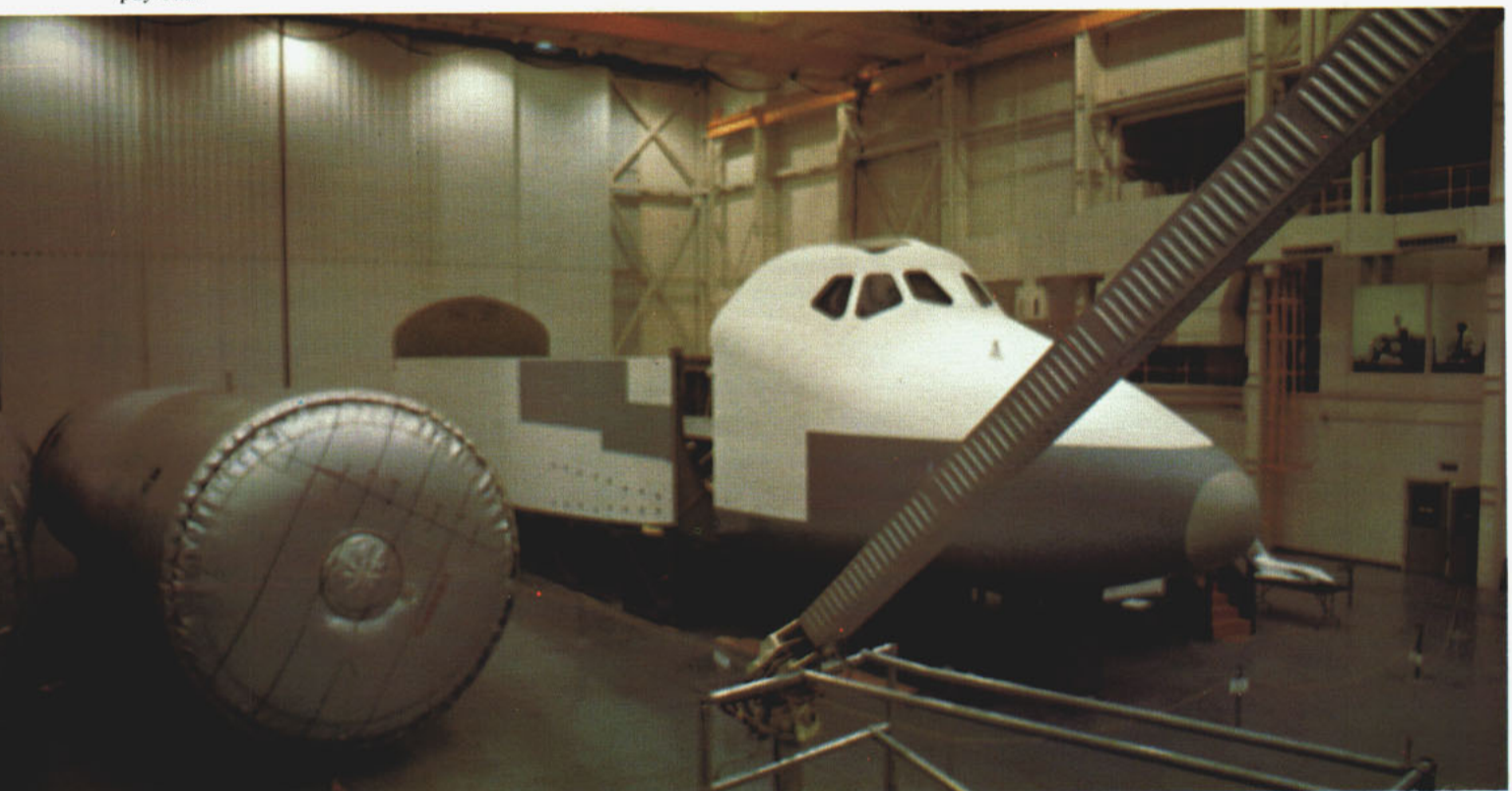
"With so many breakthroughs and technical advances happening every day," Kerwin explained, "it's a constant learning process. Each mission into space represents years of hard work and planning by a lot of people."

Kerwin should know. He served as scientist-pilot for Skylab 2, which was launched on May 25, 1972, and returned June 22, establishing a new world's record of 672 hours and 49 minutes for a single mission. With him on that mission were two other Navy men (both now retired), Charles Conrad and Paul Weitz. On the back-up crew was another Navy man (still on active duty), Commander Bruce McCandless, II.

CDR McCandless waits patiently for his turn in space. Second in his Academy class of 899 men, he comes from a long line of Navy men—USS *McCandless* (FF 1084) bears his father's and grandfather's names, and USS *Bradley* (FF 1041) was named for his maternal grandfather.

McCandless earned his wings in 1960 and subsequently saw duty aboard USS *Forrestal* (CV 59) and USS *Enterprise* (CVN 65). After serving as an instrument flight instructor at Oceana, Va., he completed his graduate studies in electrical engineering and was selected for the space program.

*Top: See-through plastic model of rescue system developed for shuttle; in an emergency, astronaut can fit into rescue ball and (facing page) be transported by another astronaut. Middle: A shoe design being studied for use inside craft. Below: Gray cylindrical objects next to shuttle mock-up are air-filled balloons which simulate, for training purposes, weightlessness of space and bulk of payload.*



He is a devoted family man. "Being in a Navy family nearly all of my life—first as dependent and now career officer—adds up to a lot of travel. We never stayed in any place long enough to really establish any roots," McCandless explained. "I've been with the space program for nearly 10 years and when you live in a community for that length of time, you just have to get involved."

McCandless is involved. A large part of that concern deals with saving the environment. To that end, he is a member of the National Audubon Society, and vice president of the local Houston group.

"The Audubon Society is more than watching birds. We are involved in all aspects of wildlife. For instance, we were instrumental in setting up a wildlife reservation not far from here."

McCandless came into the space program on April 4, 1966. Included in that same group of 19 men was a young Navy lieutenant, Thomas K. Mattingly, II.

Mattingly, now a commander, has to be the astronaut's astronaut. John Young, a retired Navyman himself and chief of the astronaut office, says it's nothing for Mattingly to work 12 hours a day.

"This is what I've always wanted to do," Mattingly said. "As a child, I can remember looking up at the moon and wondering what it would be like to stand up there and look up at the earth."

Mattingly got that look at the earth during the Apollo 16 mission when he served as the command module pilot.

He came into the Navy in 1958 and received his wings two years later. He was then assigned to VA-35 and flew A1H aircraft aboard USS *Saratoga* (CV 60). In 1963, he was stationed with VAH-11 deployed aboard USS *Franklin D. Roosevelt* (CV 42). Before reporting for duty with NASA, he was a student at the Air Force Aerospace Research Pilot School.

Completing astronaut training, he was selected to serve as a member of the support crews for Apollo 8 and 11 missions. But his career has not been without its disappointments. He was designated command module pilot for the Apollo 13 mission but after exposure to German measles, was removed from flight status 72 hours before the scheduled launch.

"That had to be the biggest disappointment of my life," he said. "After all those months of planning and working, to have it all disappear because of something as dumb as the measles, well, it was a trying time to say the least. I guess the worst part was that I never did come down with the measles," he laughed.

Currently, Mattingly is involved with developing the operational end of Space Shuttle.

"I'm really excited about the shuttle program. It's going to help solve so many of the problems we face today.

"For example, picture a huge solar energy collector, covering 25 square miles and resembling the framework of a box kite. The collector is in a fixed orbit about the earth, beaming down pure energy in the form of non-polluting microwaves to a receiving station. Sound like the answer to our energy problem?" Mattingly asked. "Experts are al-

ready predicting that, with Space Shuttle, such a solar power station could be a reality before the turn of the century.

"It's mindboggling, but with shuttle, we will have the means to do that and more," he said. "We are only limited by our imagination."

Mattingly isn't the only one envisioning a bright future in space. Many American manufacturers see a day when floating space factories will circle the earth.

Past experience has suggested that the gravity-free environment of space has great potential in manufacturing. Biomedical liquids, molten metals and glass take on new characteristics when produced in the absence of gravity. By using the weightless environment, man will be able to produce drugs, metal alloys, electronic crystals and glass lenses that are purer and stronger than those attainable on earth.

For example, one drug used to break up blood clots now costs \$1,500 per dose to make. Drug company officials estimate that a manufacturing plant in space could produce that same life-saving dosage for \$75.

Other nations will also benefit from shuttle. The European Space Agency (ESA) has agreed to commit almost \$500 million to design and build a space laboratory that will fit into shuttle's cargo bay. The spacelab is expected to be a frequent passenger and is designed to be flown as many as 50 times over a 10-year period.

"In essence," Mattingly explained, "NASA has gone into



# SPACE SHUTTLE

the trucking business by selling space on flights to private concerns or other governments. The 'rent' they charge will help pay for the cost of the shuttle, making space travel an economical and, perhaps someday, profitable area of exploitation. Economy is the shuttle's major asset."

The Shuttle Transportation System (STS) consists of three basic components, two of which are reusable.

"Unlike other spacecraft that are discarded after each flight at a loss of millions of dollars," Mattingly explained, "the shuttle can be refurbished and made ready again for launch within two weeks." A single craft will be used for as many as 100 missions into space.

STS includes the shuttle orbiter, a massive tank containing the fuel and oxidant for the orbiter's engines, and two torpedo-shaped booster rockets. To place the shuttle in space, the orbiter is attached, piggy-back fashion, to the fuel tank. The rockets are then attached on either side.

Minutes after launch, using the three main engines on the orbiter and the rocket boosters for thrust, the boosters will drop away—their job finished—parachute back to the ocean for recovery and future use. The fuel tank, the only part of the system not reusable, is discarded moments before the orbiter enters space.

On a standard mission, the shuttle will remain in orbit anywhere from seven to 30 days, reenter the atmosphere

and glide to a landing—just like an airplane—at designated runway strips in California or Florida.

The shuttle can be readied from standby status for a rescue mission launch within 24 hours after notification. For emergency rescues the cabin can accommodate as many as 10 people, so all occupants of a disabled orbiter could be rescued by another shuttle.

Another active-duty Navyman, Commander Richard H. Truly, was among the four men (two 2-man crews) NASA selected for the initial test flights of shuttle. Truly, pilot for the second crew, has been in NASA's astronaut program since September, 1969, and was a member of the support crew for all three Skylab missions.

He completed his naval flight training in 1960 and was assigned to Fighter Squadron 33. Truly served aboard both USS *Intrepid* (CVS 11) and USS *Enterprise* (CVN 65), making over 300 carrier landings. After graduating from the Air Force Aerospace Research Pilot School, he was reassigned there as an instructor.

From November 1965 to September 1969, Truly was assigned to the Air Force as an astronaut in its Manned Orbiting Laboratory Program. When that program was disbanded in 1969, he was assigned to NASA. Truly has been in intensive training in simulators and a modified Gulfstream jet in preparation for manned shuttle approach and landing tests (ALT).

The first manned "free" flights, scheduled for this year, call for Shuttle Orbiter 101, christened "Enterprise," to be carried aloft on top of a modified 747 aircraft, released, and "flown" to an unpowered landing three or four minutes later at Edwards Air Force Base in California. ALT tests will continue until 1979 when the first manned orbiter is scheduled for launch into space.

The fifth astronaut on active duty in the Navy is Commander Robert Crippen who attended the Air Force Research Pilot School, became an instructor, then entered the Manned Orbiting Laboratory at the same time Truly did.

Crippen was a crewmember in the Skylab Medical Experiments Altitude Test (SMEAT)—a 56-day simulation of the Skylab mission. This important test enabled scientists and engineers to collect realistic data and evaluate the equipment, operations and procedures planned for the real mission. Later, he served as part of the astronaut support crew for Skylab 2, 3 and 4 missions and the Apollo-Soyuz Test project, which was completed successfully in 1975.

Like all of the Navy astronauts, Crippen's days are filled with activities and training for the Space Shuttle Program.

"Right now, we're preparing for the new astronaut-candidates expected soon," he said.

Since shuttle will normally carry as many as seven crewmembers and make 60 flights a year by 1985, NASA is preparing for the future by selecting 30 astronaut-candidates—opening the elite astronaut ranks to nonflyers and women for the first time.

"We've already received more than 1,000 requests for information from women and the applications keep coming in," Crippen said.

Shuttle will make space travel possible for those who never could have flown in earlier craft.

*CDR Dick Truly at the controls of a training simulator.*



"At launch, passengers will feel a maximum gravity load of only three 'Gs', or about a third of that experienced on previous space flights," he explained.

Shuttle seems destined to take the romance and glamour out of space travel. Predicting "routine" operation in the future, NASA has developed "off the rack" spacesuits available in three sizes—small, medium and large.

But if the glamour of space flight is decreasing, so is the expense.

One form of immediate savings is apparent. An important part of many Space Shuttle missions over the next few years will be the placement of costly satellites into earth orbit.

"Today, it costs about \$60 million to launch two communication satellites into high orbit and there's no guarantee that they will work once they are up there," explained astronaut Mattingly. "Shuttle could deliver five of those satellites—in guaranteed working condition—for less than half the present cost, about \$28 million. What's more, on the way home," he continued, "it could save millions more by recovering a broken satellite and repairing it, or returning it intact to earth for repairs."

As it becomes easier to place them, more sophisticated

satellites can be developed. Soon, we will begin to feel the effects in everyday life.

For example, certain sensor systems planned to be placed in space by shuttle are so sensitive that they can identify crops in fields, tell the vigor and probable yield, and even determine initial stages of plant diseases or insect infestation, pinpointing it down to the first affected area. The same system can help conserve our forest resources by locating fires in remote areas before they can get out of control.

Other satellites can track pollution back to its source or identify undiscovered mineral deposits and new sources of fossil fuel. Ocean temperatures can be mapped, allowing experts to predict the movement of schools of fish.

If history is any indication, the 30 new astronaut-selectees coming to NASA will have several Navy people in its ranks—including, perhaps, Navy women and enlisted personnel.

As the designers of shuttle develop new uses for the system, its potential uses will multiply. But the bottom line for the potential of space exploration is the people who must ultimately make the system operate. Navy personnel will continue to fill those ranks, as they have since America's first venture into space. ↓

## WHERE HAVE ALL OUR SPACE MEN GONE?

Where have they gone? What are they doing? Here's a summary of the current status of those Navymen selected to serve in the astronaut program.

**GROUP ONE** (Project Mercury astronauts selected April, 1959)

CDR M. Scott Carpenter—Left space program to join the U.S. Navy Sealab Program in 1967; retired from the Navy July, 1969; in private business in California.

CAPT Walter M. Schirra, Jr.—Retired from active duty in 1969; now director of Technology Purchase, with Johns-Manville Corp., Denver, Colo.

RADM Alan B. Shepard, Jr.—Retired from the Navy in 1974; now president of Windward Co., Deer Park, Tex.

**GROUP TWO** (Test pilot astronauts selected September, 1962)

CAPT John Young—Retired from the Navy 1976. Still in a flight status and serving as Chief, Astronaut Office, Johnson Space Center.

CAPT Charles Conrad, Jr.—Retired February 1974; currently vice president, Marketing, McDonnell Douglas Corp., Denver, Colo.

CAPT James A. Lovell, Jr.—Retired in 1973; currently the president and chief executive officer, Bay-Houston Towing Co., Houston, Tex.

**GROUP THREE** (Pilot astronauts selected October, 1963)

CAPT Alan L. Bean—Retired from the Navy in 1976; still in a flight status at NASA.

CAPT Eugene Cernan—Retired from the Navy in 1976;

he is executive vice president, International, Coral Petroleum Co., Houston, Tex.

CAPT Richard F. Gordon, Jr.—Retired from the Navy 1972; now executive vice president, New Orleans Saints (football), New Orleans, La.

LCDR Roger B. Chaffee—Died in *Apollo* Spacecraft fire Jan. 27, 1967.

**GROUP FOUR** (Scientist astronauts selected June, 1965)

CAPT Joseph P. Kerwin—Active duty.

**GROUP FIVE** (Pilot astronauts selected April, 1966)

CAPT Ronald E. Evans—Retired from the Navy but is still in a flight status at NASA.

CDR Thomas K. Mattingly, II—Active duty.

CDR Bruce McCandless, II—Active duty.

CAPT Paul J. Weitz—Retired in 1976; still in flight status at NASA.

LCDR John S. Bull—Withdrew from space program because of pulmonary disorder, July, 1968; now employed with NASA Ames Research Center, Moffett Field, Calif.

CAPT Edgar D. Mitchell—Retired from the Navy in 1972; now president, Edgar D. Mitchell and Associates, Inc., Palm Beach, Fla.

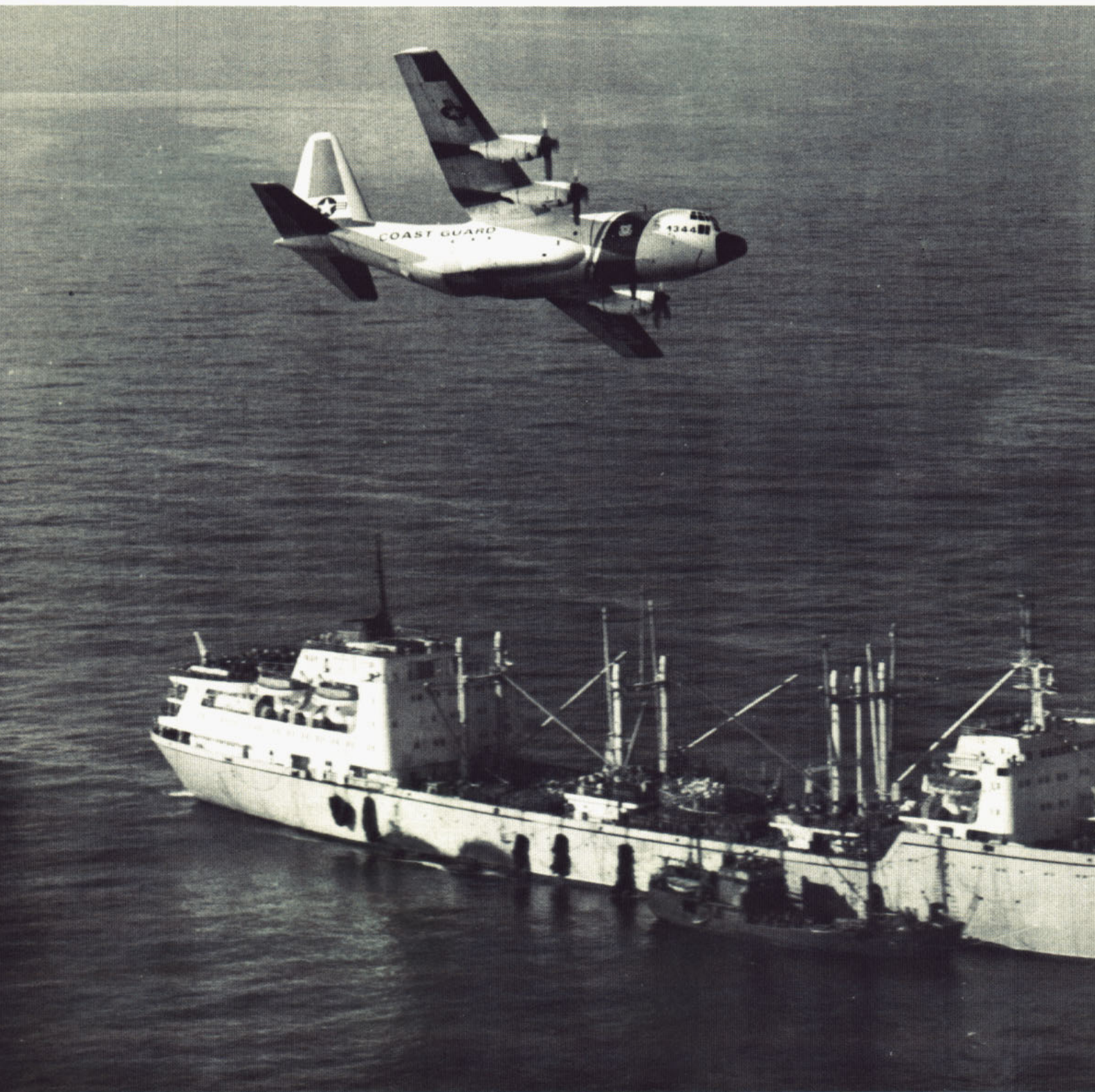
**GROUP SIX** (Scientist astronauts selected August, 1967)  
No Navy Men

**GROUP SEVEN** (Pilot astronauts—Former Air Force Manned Orbiting Laboratory pilots who entered NASA program in August, 1969)

CDR Robert Crippen—Active duty.

CDR Richard Truly—Active duty.

# the COAST GUARD



# today



## in the tradition of RASMUS MIDGETT

BY JO2 DAN WHEELER

Smuggling was considered a patriotic duty during the American Revolution. Fortunes were made as essential goods slipped past British blockades. By war's end though, smuggling had become a way of life for some even though it no longer benefited the country — in fact, it robbed government coffers of much needed duties.

If the United States was to survive fiscally, smuggling had to be curtailed. Officials easily convinced the people that customs duties instituted by the Congress actually amounted to taxation *with* representation, yet it was not easy to make them understand that smuggling was a crime and smugglers were criminals.

Secretary of the Treasury Alexander Hamilton decided a fleet was necessary to enforce customs laws. He petitioned the Congress to provide for that purpose: “. . . 10 boats — two for the coasts of Massachusetts and New Hampshire; one for Long Island Sound; one for New York; one for the Bay of Delaware; two for the Chesapeake Bay; one for North Carolina; one for Georgia; and one for South Carolina.”

Congress agreed. On Aug. 4, 1790, the Coast Guard was born.

At first it was called the Revenue Marine; later, the Revenue Cutter Service; and finally (in 1915) the United States Coast Guard. Despite name changes, the Coast Guard has retained its identity as an organization and, today, it is the oldest of the nation's continuously active seagoing armed forces.

The modern Coast Guard came into being Jan. 28, 1915, with the merger of the Revenue Cutter Service and the Lifesaving Service. The aim of the new service was “to protect life and property from the ravages of the sea.”

Though the Guard today still continues to "detect and prevent frauds against revenue," its most visible activity is Search and Rescue (SAR). During fiscal year 1975 alone, the service responded to more than 62,000 calls for assistance and was credited with saving upwards of 3,000 lives. Many times, Guardsmen were forced to put to sea in the worst possible weather literally on a moment's notice. "All I know is the regulations say you have to go out," said one old timer. "They don't say anything about having to come back." Usually though, they do come back with their missions accomplished.

In the early years it was the surfmen who brought distinction to the service. They patrolled the beaches on foot and on horseback constantly searching for smugglers beaching their goods and ships in distress.

Many such Guardsmen made their names legend in the service but none personify the Coast Guard's tradition more than Rasmus Midgett (who was anything but small when it came to courage). In mid-August 1899, the barkentine *Priscilla* was thrown hard aground by 120-knot winds and broken in two just off Cape Hatteras, N.C. Rasmus Midgett, patrolling his strip of beach in hurricane force winds that made it difficult to remain on horseback, spotted barrels, boxes and wreckage being washed ashore. Searching the boiling surf, he spied the wrecked barkentine a half mile off the shore.

Fearing if he rode back to his station for help, the survivors would drown, Midgett headed his horse straight into the ocean toward *Priscilla*. Hailing the embattled sailors to throw themselves into the sea one by one so he could drag them to shore, Midgett pushed his mount close to the wreck and carried seven sailors to safety in as many trips. Three, however, were injured and too weak to even throw themselves within reach. Leaving his exhausted horse ashore, Midgett swam to the wreck three more times and each time returned to the beach with another sailor.

Later, receiving the Gold Lifesaving Medal, Midgett said, "Anyone would have done what I did. It was my job."

Guardsmen no longer patrol the beaches on foot and horseback, nor do they endure the back-breaking torture of battling their whaleboats in churning surf. Instead, they put to sea in a variety of modern craft to do jobs never before envisioned. And today, it is not just the men who put to sea either. This fall — for the first time in its history — the Coast Guard is allowing women to serve as ship's company aboard cutters with appropriate compartments for their use. Because of legal restrictions forbidding women to serve in combatant ships, women aboard these cutters will



be replaced by men during military readiness operations.

Aviation has greatly extended the helping hand of the Coast Guard. Rescue operations that were once restricted to coastal waters because of the limited range of earlier equipment, can now be carried out on the ocean. Giant HC-130 *Hercules* four-engine turbo-prop planes are used for SAR missions far out at sea.

(The Coast Guard has had a hand in aviation from the very beginning. When the Wright brothers made their historic flight at Kitty Hawk in 1903, three members of the nearby Kill Devil Lifeboat Station were on hand. One of them snapped a picture of the plane while it was airborne and, after the flight, when a wind flipped the plane over and threatened to wreck it, all three grabbed it and helped secure it safely.)

Fisheries surveillance now involves more cutters, helicopters and personnel than ever before since the United States — in March — extended its fishery zone out to 200

Left: Coast Guardsmen escort crewmen from a Panamanian freighter which carried about 30 tons of contraband. Below: Some of the marijuana found in the holds of the 325-foot Panamanian freighter M/V Don Emilio.



miles. The Fishery Conservation and Management Act of 1976 gave the U.S. control of about 10 per cent of the world's fisheries resources and gave, as well, the Coast Guard exclusive domain over all foreign fishing within the zone.

Randomly patrolling an area of more than 2.2 million square miles of ocean, Guardsmen and women board and inspect foreign fishing vessels to determine that quotas are not exceeded. They have the power to seize foreign vessels when violations of U.S. law are evident.

USCG spokesmen point out that enforcement of fisheries laws and treaties has been a primary duty of the sea service for generations and new law enforcement endeavors closely parallel previous efforts.

Another challenge constantly facing members is effective control of oil spills. Thanks to a unique "oil fingerprinting" process, developed at the USCG Research and Development Center in Groton, Conn., vessels responsible for oil pollu-

tion can be identified through examination of spill samples. The Coast Guard uses a combination of four different analyses to bring out the unique chemical traits of the samples. By comparing these with oil residue still in tankers' holds, officials are able to pinpoint with 99 per cent accuracy who the culprit is in any unreported oil spill.

For instance, in July 1975, a 40,000-gallon oil slick washed ashore in the Florida Keys, fouling miles of coastline and threatening the undersea environment. By the time the spill had washed ashore, hundreds of miles separated the offender from his misdeed. He seemed virtually assured of anonymity.

Immediately the Coast Guard began investigative work. Each of the 247 vessels which had passed through the Florida Straits at the approximate time of the spill was boarded. Coast Guard personnel interviewed members of each crew and took oil samples from suspect vessels. Samples were sent to the USCG research center and compared with samples taken from the spill.

After exhaustive lab work, the Coast Guard identified the polluter, arrested the vessel's Master and charged him with failure to notify proper authorities of the spill, an offense punishable by a \$10,000 fine and a year's imprisonment.

Not all Coast Guard jobs involving spills take the form of Sherlock Holmes' work. Much of it is done by the USCG Strike Force which is tasked with control and clean-up of oil spills resulting from marine accidents.

The Strike Force is divided into three 20-man teams specially trained to fight spills. Since its beginning in 1973, these team men have fought hundreds of spills while repeatedly risking their lives to rescue crews, save sinking ships, salvage oil still in holds, contain spills and clean up polluted areas.

Perhaps the most famous case in which Strike Force members were involved recently was the grounding of the Liberian tanker *Argo Merchant*. The tanker ran hard aground 25 miles southeast of Nantucket Island, Mass. while carrying 7.5-million gallons of heating oil. In 20-knot winds and heavy seas, Strike Force members boarded the stricken vessel by helicopter to rescue crew members and tried to prevent the tanker from breaking up and dumping its thick cargo. "That was one situation that got the best of us because of the weather," said Lieutenant Commander Barry Chambers, the Atlantic Strike Team's officer-in-charge. "Unfortunately, it also received most of the publicity."

Most strike team missions are considered successes,



Left: The Coast Guard Cutter Sherman approaches an iceberg in the Northwest Atlantic. Reports from the C-130 help predict the movements and positions of icebergs. Below: A Coast Guard scientist takes a core out of the ice to determine temperature, salinity, thickness and strength of the ice.



however. During the month following the *Argo* wreck, the Atlantic Team alone worked on five other spills including the grounding of the Liberian tanker *Olympic Games* in the Delaware River near Philadelphia, and others in the Great Lakes, Buzzards Bay, Hudson River and Chesapeake Bay.

After each spill incident, Coast Guard members immediately began clean-up operations using sophisticated oil skimming equipment. "Everything eventually evolves to the guy with the hose and vacuum tank sucking up the oil," said one Coast Guardsman. "Then it comes down to a shovel and rake on the beach."

A cleaner, but no less important job, is done by the Coast Guard's International Ice Patrol, in existence since 1914 following the loss of the *Titanic*. Their primary job is tracking icebergs that drift into major North Atlantic shipping lanes and present navigational hazards. During the ice season — February through August — the area is blanketed with fog and every year an average of 400 bergs drift southward toward the busiest steamer lanes in the world.

In an area about the size of Pennsylvania it is not inconceivable that one or more icebergs occasionally slip by unobserved into shipping lanes despite the most up-to-date detection equipment used by ice patrol cutters and C-130 aircraft. Yet, in all the time the Coast Guard has charted icebergs, no ship has been lost through collision with an iceberg. (Operations were suspended during the two World Wars and in March 1943 a British ship hit a berg. Before she sank, however, 145 persons aboard her were rescued by Coast Guard and other craft.)

In addition to tracking icebergs, the Coast Guard also cracks the ice to provide sea lanes during the winter months. For example, 12 cutters provide icebreaking services on the Great Lakes during the winter. Great Lakes' routes used to be closed to shipping during the cold months, but, due to extended USCG efforts, year-round navigation was accomplished on the upper four lakes during the past two years. In 1976 alone, \$975 million worth of cargo

safely reached destinations thanks to USCG icebreaking forces.

Working hand-in-hand with the Drug Enforcement Administration and the U.S. Custom Service, the Coast Guard helps stop illegal drugs from reaching our shores. During 1976, the Guard seized 25 vessels and confiscated tons of narcotics valued at more than \$133 million.

In one incident this past October, the high endurance cutter *Sherman*, working closely with the Panamanian government, intercepted the 225-foot Panamanian-flag freighter *Don Emelio* east of the Bahamas. Finding narcotics on board — 35 tons of marijuana and 86 pounds of hashish, worth \$20 million — the cutter took the vessel in tow to Miami where it was turned over to the Customs Service.

Perhaps the best known of Coast Guard functions involves boating and marine safety. Few are the pleasure boaters who have not come in contact with a member of the Coast Guard Auxiliary, an organization of 47,000 civilian volunteers dedicated to the promotion of recreational boating safety. The Coast Guard, per se, is also deeply involved in the promotion of boating safety.

In 1976, the USCG developed the most comprehensive regulatory package of safety standards ever devised for recreational boats. New safety standards for fuel and electrical systems, and level flotation are expected to prevent an estimated 210 deaths annually. Additionally, the Guard's Office of Boating Safety continues to educate the public about recreational boating through a program of public service announcements on television, radio and in the



*Top: A snare is used to soak up oil. Snares are fibrous "mops" (one hangs here from a pitchfork) which can absorb up to 40 times their weight in oil. Above: USCGC Vigilant arrives to stand by the grounded SS Argo Merchant. Right: A Coast Guard woman cadet receives practical seamanship training aboard the barque USCGC Eagle.*

printed media.

Not concerned with recreational boating alone, the Coast Guard's Commercial Vessel Safety Program was designed to prevent accidents on the high seas. The Office of Merchant Marine Safety is closely associated with nearly every phase of the life of an American ship from the first plans on the drafting board to the final trip to the scrap heap. Even on smaller vessels not subject to intensive inspection, certain laws and regulations requiring safety equipment, identification numbering, safety procedures, and manning by qualified crews are administered and enforced by the Guard.

Among the duties which the Coast Guard performs on merchant ships are thorough, periodic inspections of hulls,

machinery and equipment to ensure seaworthiness and compliance with safety regulations; the approval of plans before construction or conversion of merchant vessels; and an extensive first inspection of all new vessels during construction to make sure they are built in compliance with the approved plans.

Obviously, despite its name, the 38,000-member Coast Guard is involved in much more than guarding our nation's coasts. Search and rescue, fighting crime on the high seas, prevention and clean-up of oil pollution, and protection of fishing grounds are among its many missions. Although it performs myriad peacetime duties, the Guard doesn't neglect its military readiness responsibilities. As a member of the Armed Forces, the Coast Guard works closely with the Navy in training to meet fleet performance standards and strongly emphasizes refresher training for crews of USCG high endurance cutters.

Admiral Owen W. Siler, Coast Guard Commandant, sums it all up by saying, "Our organization functions effectively because it has always operated on a multimission concept. While we have many professional specialities, we



are essentially generalists, trained in many skills and ready to serve in many roles.

"We see 'Semper Paratus' (Always Ready) as more than a motto; to us, it's a way of life." ⚓

# grand old lady of

BY JO2 DAN WHEELER

USCGC *Sundew* (WLB 404) is the hardest worker in Charlevoix, Mich.

When the snow whips down from the north causing freighters to inch their way through the slush on Lake Michigan, Charlevoix closes shop and snuggles up till spring. *Sundew*, though, prepares for her busy season.

The waters inevitably change to ice and seagoing giants cease to make headway. It's then that the grand old lady of Charlevoix turns to, just as she has each winter for more than three decades.

"*Sundew* is the most powerful seagoing, icebreaking buoy tender in the Coast Guard," said her commanding officer, Lieutenant Commander J. V. O'Neill, USCG. "Her supercharged engines enable her to handle icebreaking duties in the Strait of Macinac, a waterway that sees a lot of commercial traffic and a lot of ice."

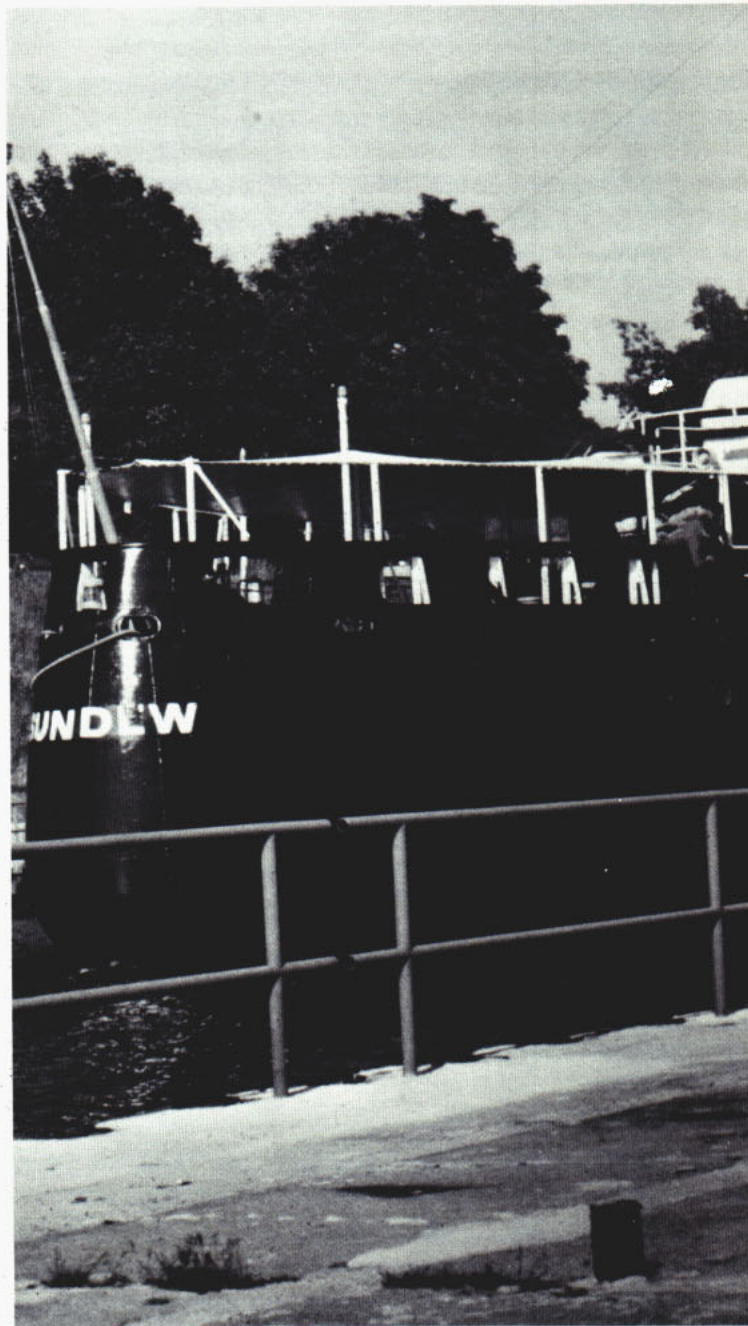
Built in wartime (1944), *Sundew* today is responsible for maintaining aids to navigation and providing logistics support for lighthouses in an operating area which includes northern Lake Michigan, northern Lake Huron and part of the St. Mary's River. She regularly steams the other lakes when needed. Though her main job is tending buoys, *Sundew* is tasked with considerable icebreaking duties.

"This past winter, we left Charlevoix on November 28 to work buoys on Erie and Ontario," LCDR O'Neill said. "We saw our first ice two days later, and by December it was forming so rapidly that ice breaking assistance was necessary a full month earlier than in previous years."

It was a hard winter for this buoy tender which tied up in her homeport for only 10 days during that three-month tour; she saw her last icebreaking mission in late April. Traditionally, navigation on the lakes ceases in December and doesn't resume until spring. For the last four years, however, the Coast Guard has devoted its icebreaking capabilities to testing the feasibility of year 'round navigation on the Great Lakes.

"The commercial ships trying to transit the lakes go as far as they can under their own power," the captain said. "Then, they call for Coast Guard assistance. That's when we go to work."

Depending on the weather, the ice-breaking buoy tender breaks a path through the ice for a commercial carrier in one of two ways. If the weather is fair, *Sundew* overtakes the vessel and ploughs a path through the ice for the commercial carrier to follow. If there are strong winds which draw the ice back together as fast as it is broken, *Sundew* steams ahead of the carrier, opens a craggy channel, and then drops back downwind, alongside, to prevent the ice from closing.



"Sometimes," LCDR O'Neill said, "we go for days like this—one giant step forward three steps back, making only a mile or two in as many days."

In such operations, *Sundew's* bridge personnel do most of the work directly involved with icebreaking while the remainder of the 47-man crew performs interior maintenance. "During the winter months, we get the inside painted and

# Charlevoix



most of our maintenance completed. Most of the men seem to be along for the ride since there is so little for them to do directly related to the ship's mission. It's hard on them to be underway and have time on their hands, so I usually leave about one-third of the crew ashore. During the winter I can operate with two-thirds of my crew," the captain said.

Once the last icebreaking assignment is completed and

the thaw has set in, all of the crew is necessary. "Immediately, we begin the job of replacing the buoys which had to be removed for the winter," the captain said. "I have 99 buoys to tend. The winter hit us so severely and so early last year that we lost hundreds of thousands of dollars worth of navigation aids and actually found several of our buoys 30 to 40 miles off station."

Once the initial tending is completed in the spring—a job requiring about four weeks of continuous work—*Sundew* returns to Charlevoix for "some rest and relaxation." The men can use the stand down after a winter on the Great Lakes, but the grand old lady has done her share of suffering as well.

"By the time spring arrives the exterior is pretty ratty," said LCDR O'Neill. So spring is also a time for chipping, scraping and painting *Sundew's* skin. But it's not all work and no play; there really is time for relaxation.

During the winter, Charlevoix's few permanent residents thrive on skiing, sledding, hunting and ice fishing or movie watching on weekends. But come summer, the 3,000-person population blossoms into 30,000 tourists and summer residents. "It's not the same place," the captain said.

Each season, the buoy tender holds open house every weekend to the delight of literally thousands of visitors who come aboard. Practically every crewmember and his family is involved in community projects and activities, and the ship participates in community affairs. *Sundew* serves as a platform for the queen of the annual summer festival and also anchors out with all lights blazing to illuminate the town's yearly boat parade called Venetian Night.

This summer will be *Sundew's* last in Charlevoix for a while if all goes as scheduled. Though she has served faithfully for 33 years and has never left the Great Lakes (she was built in Duluth, Minn.), the ship is going to the yards for a facelift.

When she leaves the yards, she'll be a new woman. Her open-bay berthing area with racks stacked three high will be replaced with three-man cubicles, and air-conditioning will be installed. Some hull work and engineering improvements will be the finishing touches expected to add another 15 years to her life before she finally retires.

LCDR O'Neill, for one, will be sorry when that retirement ceremony is held. "It would cost millions to duplicate this ship today," he said, "and she cost less than a million to build. She's not a 'drag racer' like some of the newer cutters, but she is a hardworker that can go anywhere and she's seaworthy as hell.

"The Coast Guard has a real winner with *Sundew*." ↓

# Mail Buoy

## Command at Sea

SIR: Several officers assigned to my unit have had numerous discussions concerning eligibility for command at sea and authority in a boat.

It appears that ambiguity exists in the reference material. Specifically, (1) In article 0865 of Navy Regulations, it says officers of the line designated for limited duty may succeed to command provided they are authorized to perform all deck duties afloat. What or who determines if a limited duty officer is authorized to perform all deck duties afloat? Does he have to be a qualified Officer of the Deck underway?

(2) Article 0825 of Navy Regulations says the senior line officer eligible for command at sea has authority over all persons embarked therein, and is responsible for the safety and management of the boat. Does this mean that a young ensign (surface warfare type fresh out of OCS) has authority over an LDO Lieutenant (6351)? Over a Lieutenant (1130—qualified in special warfare)?

(3) Does a junior line lieutenant (1130—qualified in special warfare) have authority over a senior line LDO (6351)? Or does the ensign (surface warfare) have authority over both? What if you had a junior line lieutenant (surface warfare), would he have authority over both the more senior line lieutenant (1130) and the senior line LDO (6351)?

(4) In a command in which an executive officer is not detailed, who could legally perform the duties of the XO? A senior lieutenant line LDO (6351) or a junior line lieutenant (1130) or an even more junior line lieutenant (surface warfare)?—name withheld by request.

• *Whew! It took a bit of work to come up with the answers to this multi-question question, but here goes:*

*In response to question 1, BuPersMan, 1820320.1.a(2), says, in part, "... a line LDO attached to and serving in a ship shall be designated as eligible to succeed to command at sea by the first commanding officer who authorizes him to perform all deck duties afloat." Such duties are interpreted as including duties as officer of the deck underway.*

*In response to questions 2 and 3, Article 0825, U. S. Navy Regulations, 1973,*

*is interpreted as indicating that, when embarked in a boat not having an officer or petty officer in charge, the unrestricted line ensign (surface warfare) would have authority over the LDO lieutenant who has not been designated as eligible for succession to command at sea, but not over the unrestricted line lieutenant (special warfare); if the unrestricted line lieutenant (special warfare) were embarked, he would have authority over both.*

*It is assumed that question 4 relates to the detail of an executive officer of a unit or activity for which eligibility for command at sea is a requisite for succession to command. In such case, if no executive officer is detailed by the Chief of Naval Personnel, Article 0843, U. S. Navy Regulations, 1973, is interpreted as indicating that the commanding officer, must detail the unrestricted line lieutenant (special warfare) as executive officer, rather than the more junior unrestricted line lieutenant (surface warfare). The more senior LDO lieutenant would be eligible for detail as executive officer only if he has been designated as eligible for succession to command at sea, in which case he would take precedence over the two unrestricted line lieutenants for detail as XO.—Ed.*

## Sideburns

Below are some of our readers' reactions to the retouched photo of three chiefs promoted to warrant officer which ALL HANDS published in the April issue. Space limitations prohibit our publishing the letters in their entirety:

SIR: The three W-2s pictured in NAVY TIMES do not meet the Navy grooming standards and the W-2 in the center displays no devices on his hat. In ALL HANDS, the pork-chop sideburns and the Fu-Manchu beard were eliminated. If your staff on ALL HANDS was responsible for the alteration of the photograph to assure the W-2s conformed to Navy Uniform Regulations, I consider that action devious, untrustworthy and a direct misrepresentation of the truth. It is bad enough to have the Commanding Officer of that ship allow his senior supervisory

personnel to maintain such poor standards, but I consider it even worse to alter the facts. — CAPT H. A. Taylor

SIR: I'm sorry to report that your standing has gone down in my book, and it will take some time for me to put my entire trust in ALL HANDS magazine again. — ABCM J. Schulman

SIR: Congratulations, ALL HANDS, for giving these sterling examples their much needed haircuts. I can only wonder about the leaders who recommended them for warrant. Perhaps now that they are warrant officers they will follow the appearance guidelines shown by ALL HANDS in retouching their photo before printing it. — CWO3 K. W. Allen

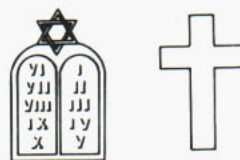
• *Our thanks to all of you for your letters. Oftentimes, the photography accompanying releases sent to ALL HANDS is not of the quality required for reproduction in our magazine. High quality people pictures are especially difficult to take, occasionally making it necessary to re-crop, clean up and even retouch photography before publication. We assure our readers that retouched pictures, such as the one of the chiefs-made-warrants, will not be published in ALL HANDS in the future.*

*In addition to the quality of photography ALL HANDS receives, there is the problem that many subjects in Navy photos do not adhere to uniform regulations or grooming standards. It is a difficult situation. If we publish the photo, we're criticized by the majority of commanding officers who uphold these standards. If we don't, then many articles die owing to lack of graphic support . . . and we've failed to use stories we've solicited from fleet units.*

*Our action was not motivated by a conscious effort to distort or mislead our readers. — Ed.*

# Stern Shots

What do three oak leaves, an acorn, a cross, and a "mill rinde" have in common? Right! They're all part of officers' staff corps sleeve devices. They correspond to the line officer's star device, answer (J), below. How many can you name correctly?



A



B



C



D



E



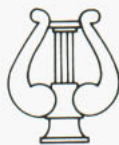
F



G



H



I



J

All Hands, the magazine of the U.S. Navy, published for the information and interest of all members of the Naval service, is issued monthly by the Office of the Chief of Information, Room 2E329, Pentagon, Wash., D.C. 20350. Issuance of this publication is approved in accordance with Department of the Navy Publications and Printing Regulations, P. 35 (revised January 1974). Opinions expressed are not necessarily those of the Department of the Navy. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted.

ORIGINAL ARTICLES and information of general interest may be forwarded addressed to the Editor, All Hands, Navy Internal Relations Activity, Print Media Division, Room 1044, Crystal Plaza No. 6, 2221 Jefferson Davis Highway, Wash., D.C. 20360.

DISTRIBUTION: All Hands is distributed to all Navy activities on the standard Navy Distribution List (SNDL) on the basis of one copy for approximately six naval officers and enlisted personnel on active duty. Limited distribution to Marine Corps activities is effected by the Commandant.

PERSONAL COPIES: The Magazine is for sale by Superintendent of Documents, U.S. Government Printing Office, Wash., D.C. 20402. The rate for All Hands is \$1.65 per copy; subscription price is \$19.00 a year, domestic (including FPO and APO address for overseas mail); \$23.75 foreign. Remittances should be made payable to the Superintendent of Documents and forwarded directly to the Government Printing Office.

Answers: A—Chaplain Corps; B—Medical Corps; C—Dental Corps; D—Civil Engineer Corps; E—Supply Corps; F—Medical Service Corps; G—Judge Advocate General's Corps; H—Nurse Corps; I—Leader, U.S. Navy Band; Leader, U.S. Naval Academy Band and Commissioned Status in the field of Music; J—Line.

# THE NAVY IN SPACE

